



# ASSESSMENT REPORT

OF THE FOUR SOUTHERN TAHSILS,

RUPBAS, OUCHAIN, BIYANA AND BHUSAWAR  
INCLUDING THE JAGIR OF BALLABGARH.

## BHARATPUR STATE.

(1899-1900.)

BY

M. F. O'DWYER, Esq., I.C.S.,

SETTLEMENT COMMISSIONER.



SIMLA :

PRINTED AT THE GOVERNMENT CENTRAL PRINTING OFFICE.

1900.



# CONTENTS.

Para.	Subject.	Page.
CHAPTER I.		
1	Introductory ... ..	1
2	Effects of the present famine on the new assessments ... ..	1
3	Financial results up to date ... ..	1
4	Method of working ... ..	3
5	Position and boundaries of the four Southern tashils ... ..	3
6	General description of the chief streams ... ..	4
7	The Banganga ... ..	4
	(a) Its course ... ..	4
	(b) Its inundations ... ..	5
	(c) Proposals for reducing the inundations ... ..	6
	(d) Utilisation of the floods for irrigation ... ..	6
	(e) Chief irrigation works on the Banganga ... ..	6
	(f) Area irrigated at present ... ..	7
8	The Gambhir ... ..	7
9	The Kakund stream ... ..	8
10	The Bareta <i>band</i> ... ..	8
11	Course of the Kakund below the Bareta <i>band</i> ... ..	9
12	Mountains ... ..	10
13	Geological formation of the hills ... ..	10
14	Summary of statistics of these tahsils and of the whole State ... ..	11
15	Rupbas ... ..	13
	(a) General description and soils ... ..	13
	(b) Natural divisions ... ..	13
	(1) Tho Wal ... ..	13
	(2) The Nadwas ... ..	14
	(3) Tho Dher ... ..	14
	(c) Rainfall ... ..	14
	(d) Communications ... ..	14
	(e) Agricultural population ... ..	15
16	Oochain ... ..	15
	(a) General description and soils ... ..	15
	(b) Natural divisions ... ..	15
	(1) The Jatmai ... ..	15
	(2) The Nadwas ... ..	16
	(3) Tho Rudawal <i>pargana</i> ... ..	16
	(c) Rainfall ... ..	16
	(d) General conditions of the people ... ..	16
	(e) Communications ... ..	17
	(f) Agricultural population ... ..	17



Para.	Subject.	Page.
CHAPTER I— <i>contd.</i>		
17	Biyana ... ..	17
	(a) General description and soils ... ..	17
	(b) Natural divisions ... ..	17
	(1) The Kather ... ..	17
	(2) Nahera ... ..	18
	(3) The Dang Upper and Lower ... ..	19
	(c) Rainfall ... ..	20
	(d) Communications ... ..	20
	(e) Agricultural population ... ..	20
18	Bhusawar ... ..	20
	(a) General description and soils ... ..	20
	(b) Natural divisions ... ..	21
	(1) North of the Banganga ... ..	21
	(2) Bhusawar <i>pargana</i> ... ..	22
	(3) Weir <i>pargana</i> ... ..	23
	(4) Ballabgarh <i>pargana</i> ... ..	24
	(c) Rainfall ... ..	24
	(d) Communications ... ..	24
	(e) Agricultural population ... ..	24
19	Soils at last settlement and now ... ..	25
20	Increase and decrease of the different classes ... ..	25
21	Wells and <i>chahi</i> area ... ..	26
22	Classification of wells according to quality ... ..	27
23	Double-cropping and average area irrigated per lao ... ..	28
24	Kinds of wells in use ... ..	28
25	<i>Takavi</i> advances ... ..	29
26	<i>Sairaba</i> cultivation and lands ... ..	29
27	Rainfall and <i>Barani</i> cultivation ... ..	30
28	Communications, trees, climate, etc. ... ..	30
CHAPTER II.		
FISCAL HISTORY.		
29	Early History of Biyana ... ..	30
30	History under Moghul rule ... ..	31
31	Land revenue valuation under the Moghuls ... ..	31
32	Conquest of the tract by the Jats ... ..	32
33	Gradual resumption of jagirs by the Jat Chiefs ... ..	33
34	Leading agricultural tribes ... ..	33
35	Rights of the agriculturists in the land ... ..	34

Para.	Subject.	Page.
CHAPTER II— <i>contd.</i>		
36	Drooght and famines ... ..	34
37	Former assessments ... ..	34
38	Progressive increase of the demand by re-assessment ... ..	35
39	Former methods of assessment and collection ... ..	35
40	Condition of the people at time of Summary Settlement ... ..	36
41	Reduction of the demand at Summary Settlement ... ..	36
42	Preparation for a Regular Settlement ... ..	36
43	Disonsion of the rights of the Zamiodars by Captain Nixon ... ..	36
44	Assessment and rates proposed by Captain Nixon for Bhusawar and Akhegarh ... ..	37
45	Three years' Settlement ... ..	37
46	Six " " ... ..	38
47	Temporary revision of the six years' Settlement ... ..	38
48	Ten years' Settlement by the late Maharaja ... ..	38
49	Effects of the famine of 1877-78 ... ..	39
50	History of revenue collections and arrears up to date ... ..	39
	(1) Prior to the famine year 1877-78 ... ..	39
	(2) " 1877-78—1882-83 ... ..	39
	(3) " 1882-83—1889-90 ... ..	40
	(4) 15 years' Settlement in 1890-91 and subsequent collections and arrears ... ..	41
	(5) Agricultural and revenue conditions of the last 5 years ... ..	43
51	Total arrears of land revenue and cesses now due ... ..	44
52	Proposals for the remission and collections of these arrears ... ..	44
53	Desertion of holdings ... ..	45
54	Transfer of villages by the State or by the owners for arrears ... ..	46
55	Estates brought under direct management ... ..	47
56	Arrangements now made for Kham villages ... ..	47
57	Deserted shares or holdings and arrangements now made ... ..	48
58	Decrease in population... ..	49
59	Famine of 1899-1900 ... ..	50
59-A.	Revenue collections of the past year and proposals regarding arrears ... ..	51
CHAPTER III.		
GENERAL STATISTICS.		
60	Tenures and methods of distributing the revenue ... ..	52
61	Inequality of distribution by shares ... ..	53
62	Size of estates ... ..	53
63	Cultivating occupancy ... ..	54
64	Area cultivated by owners and size of holdings ... ..	54
65	" " by different classes of tenants ... ..	55
66	Caste of cultivators and different methods of cultivation ... ..	56

Para.	Subject.	Page.
CHAPTER III— <i>contd.</i>		
67	Favourable assessments and Istamrar ... ..	56
68	Alienations by sale or mortgage ... ..	57
69	Analysis of the figures by tahsils ... ..	57
70	Total area alienated ... ..	58
71	Comparison with the Agra District ... ..	59
72	Increase and decrease in area ... ..	59
73	Gross and net increase in cultivation ... ..	60
74	Arrangements for the leasing of culturable waste for cultivation ... ..	61
75	Former and present cultivation by classes ... ..	62
76	Comparison of chabi, sairaba and barani areas with chabi, sairaba and barani crops ...	63
77	Double cropping ... ..	63
78	Methods of agriculture ... ..	63
79	Special crops ... ..	64
80	Mango and other fruit trees ... ..	66
81	Cattle, ploughs, etc. ... ..	66
82	Pasture land and State Runds ... ..	67
83	Income from grazing and spontaneous produce ... ..	67
84	Income from sales of milk, ghi, wool, etc. ... ..	68
85	Exports and imports ... ..	69
86	Towns, schools and dispensaries ... ..	69
87	Character of people, standard of comfort, etc. ... ..	70
CHAPTER IV.		
PRICES.		
88	Enquiry into prices and prices assumed ... ..	71
89	No rise in prices since last Settlement ... ..	71
CHAPTER V.		
CROPS AND OUTTURN.		
90	Statistics of crops grown at and since last Settlement ... ..	71
91	Leading kharif crops ... ..	73
92	Chief rabi crops ... ..	74
93	Miscellaneous kharif and rabi crops ... ..	74
94	Crop experiments ... ..	75
95	Rates of yield assumed ... ..	75
96	Comparison of rates of yield with those of other tracts ... ..	77
97	Deductions from the crop area ... ..	77
	(1) For failure of crops ... ..	77
	(2) For fodder ... ..	78
	(3) For menials' dues ... ..	78
98	Net value of the produce and State share at one-fourth ... ..	78

Para.	Subject.	Page.
CHAPTER VI.		
VALUE OF OWNERS AND STATE SHARE BY RENTS IN KIND.		
99	Area under and rate of rents in kind ...	79
100	Owner's share of the produce and its value in cash ...	79
101	Net-assets and revenue rates per <i>bigha</i> ...	80
CHAPTER VII.		
CASH RENTS AND STATE DEMAND ACCORDING TO THEM.		
102	Area under and rate of cash rents ...	80
103	State share at two-thirds of khatauni rental ...	81
104	Causes of rents being low ...	82
106	Special enquiry made in three tahsils ...	82
106	Addition to the demand on account of waste and fallow land ...	83
CHAPTER VIII.		
RATES OF LAST SETTLEMENT AND ITEMS INCLUDED IN THE PRESENT DEMAND.		
107	Rates of last Settlement ...	84
108	Demand by applying old rates to present area ...	85
109	Total present demand including cesses ...	85
110	Explanation of miscellaneous cesses and proposals for their abolition ...	86
111	Other items of demand ...	87
	(a) Talabana ...	87
	(b) Malba ...	87
112	Limitation of the rate and account of the Malba ...	87
113	Lambardars and their remuneration ...	88
114	Reform of the lambardari system ...	89
115	Assessment of Sairaba lands ...	89
116	Principles now laid down ...	90
117	Application of these principles in the Southern tahsils ...	90
CHAPTER IX. PART I.		
118	Resume of statistics bearing on the assessment ...	91
119	Summary of reasons for and against enhancement ...	91
120	Demand by the various estimates ...	92
121	Assessment proposed on cultivation and waste and period of Settlement ...	93
122	Gross and net increase and decrease on the present demand ...	93
123	Justification of the assessment proposed ...	94
124	Probable result of re-assessment of the whole State ...	94
125	Soil rates proposed ...	95
126	Comparison of new rates with those of last Settlement and of adjoining tracts ...	95
127	Other demands, cesses, etc., and revenue instalments ...	97

Para.	Subject.	Page.
PART II. REVENUE FREE GRANTS AND MISCELLANEOUS.		
128	Settlement of revenue-free lands ... ..	97
129	Area of each class, cesses now levied and nominal Jama by new rates ... ..	98
130	Proportion of khalsa and revenue-free assessment in the whole State ... ..	99
131	Explanation of the cesses paid ... ..	99
132	Arrears of cesses due from revenue-free lands ... ..	100
133	Nankar and Chutt allowauces in khalsa villages ... ..	101
134	Proposals for the appointment of chaudhries or zaildars ... ..	101
135	Progress made in other branches of the settlement ... ..	102
136	General remarks and cost of the settlement up to date ... ..	102
137	Points on which orders are requested ... ..	103
138	Notice of officers and conclusion ... ..	103

# ASSESSMENT REPORT

## OF THE FOUR SOUTHERN TAHSILS, RUPBAS, OOOCHAIN, BIYANA, AND BHUSAWAR INCLUDING THE JAGIR OF BALLABGARH.

### BHARATPUR STATE.

#### CHAPTER I.

1. This report deals with the four southern tahsils of Bharatpur and will therefore complete the proposals for the re-assessment of the State. The four

Introductory.

northern tahsils—Gopalgargh, Pahari, Kama and Dig—were reported on by me in September 1898, and the assessments having been sanctioned by the Government of India letter No. 677-I.A., dated 11th March 1899, were announced by me in August last and were willingly accepted by the 429 *khalsa* estates concerned, and by the zamindars and *mafidars* of all the assigned estates as well with the exception of three villages in which both parties agreed to maintain the old system of fixing the revenue by mutual consent.

A report on the four central tahsils—Kumher, Akhegarh, Bharatpur and Nagar—was submitted by me in July 1899, and sanction to the proposals having been accorded by the Government of India letter No. 2976-I.A., dated 13th October, the village assessments were announced by me in October last, and were at once accepted by the 360 *khalsa* estates in these tahsils. Moreover of the 45 assigned estates, in which the proprietary and *mafi* rights are held by different persons, in all but six both parties agreed to abide by the Jama fixed by me, and these six decided to maintain the old system.

2. The assessments for the eight tahsils (now reduced to seven by the partition of Gopalgargh between Pahari and Nagar) took effect from last *kharrif*, but as Effects of the present famine on the new assessments. the harvests of the past year were—at least in those tahsils—the worst on record since the disastrous famine of 1877-78, considerable suspensions of the demand were given according to the circumstances of each estate, and this combined with the liberality shown by the State in remitting all arrears prior to the settlement of 1890, on the occasion of the birth of a son and heir to His Highness the Maharaja, inspired confidence in the people to such an extent that not only were there no desertions of agriculturists as in past famines, but great numbers of deserters and absentees who had held aloof from the land till the revenue policy of the State in the new settlement had declared itself, returned and resumed possession of their abandoned holdings and estates.

3. The financial results of the re-assessment of the northern and central tahsils are summarised in the following table in which space has also been left to add in the figures for the four southern tahsils when complete:—

Financial results up to date.

Tahsil.	Old khalsa demand	Sanctioned new demand.	TOTAL OF JAMA AS ANNOUNCED.			INCREASE IN KHALSA.		ARREARS.				B
			KHALSA.		Maf.	Initial.	Final.	Prior to 1890 remitted.	SINCE 1890.			
			Initial.	Final.					Total.	Remitted.	To be realised.	
Gopalgarh ...	2,43,010	2,80,000	2,82,925		3,627	39,836		4,79,611	5,840	213	5,627	(a) Excludes dal Paba
Pahari ...	1,23,717	1,38,000	1,39,605 (a)		2,722	14,838		1,16,345	11,881	4,691	6,090	
Kama ...	1,33,204	1,67,000	1,67,400		14,964	19,136		1,63,416	5,591	2,765	2,810	
Dig ...	1,35,304	1,63,000	1,66,163 (b)		64,787	20,859		3,32,761	14,676	5,376	9,200	
Total northern ...	6,40,325	7,28,000	7,35,093		86,100	94,763		10,90,122	37,377	13,044	24,333	(b) Excludes kham separate
Nagar ...	69,663	1,05,000	1,04,492	1,06,785	2,776	14,824	17,117	3,61,071	1,609	989	690	
Akhegarh ...	1,35,574	1,39,000	1,40,483	1,42,783	21,016	4,909	7,208	263,002	70,340	42,747	27,608	
Kumher ...	1,35,743	1,60,000	1,47,509 (c)	1,51,559 (c)	41,000 to 41,185	11,768 (c)	15,816 (c)	3,00,230	41,449	20,427	21,031	
Bharatpur ...	1,47,431	1,60,000	1,55,268 (d)	1,57,693 (d)	34,063 to 34,810	7,837 (d)	16,162 (d)	13,60,463	1,40,720	1,12,068	28,662	
Total central ...	5,03,416	5,63,000	5,47,752 (e)	5,64,720 (e)	109,171 to 109,410	32,336	56,304	23,79,916	2,64,077	1,76,221	77,856	(c) Excludes Kumher too is kham, into which is Rs. 5,500. (d) Excludes of two kham Bharatpur at Nagar Income which is Rs. 9,000 to Rs. 9. (e) Excludes (d) about Rs.
Total northern and central ...	11,48,741	12,81,000	12,82,946	12,89,813	1,80,271 to 1,80,510	1,34,104	1,51,072	34,76,939	2,01,454	1,80,266	1,02,169	(f) Of which Rs. is for the temp resumed Jai Ballabgarh.
Rupbas ...	1,05,865	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Oochain ...	1,72,705	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bijana ...	2,05,972	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Bhusawar (f) ...	2,71,123	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Total southern ...	7,55,655	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	(f) Of which Rs. is for the temp resumed Jai Ballabgarh.
Grand total ...	10,04,396	.....	.....	.....	...	.....	.....	.....	.....	.....	.....	

Thus in the eight tahsils dealt with up to date the *khalsa* demand has been enhanced (omitting the demand for the four *kham* estates of Mandal, Kumher, Bharatpur and Srinagar) by Rs. 1,34,104 or 11·5 per cent. initially, and by Rs. 1,51,072 or over 13 per cent. finally, *i.e.*, from the sixth year of the new assessment. This moreover does not include the demand on account of excess waste—the property of the State or the villagers—separately leased for cultivation.

This may seem a serious enhancement in a State which cannot be called prosperous, but on the other hand (1) old arrears prior to 1890 amounting to nearly 35 lakhs have been remitted, and of the arrears since 1890—nearly 3 lakhs—about 2 lakhs have been struck off, and all instalments on account of these have been given up; (2) a number of extra cesses hitherto realised have been abolished; (3) the water rate on *sairaba* or flooded lands has been included in the new Jama except in Nagar and the few *kham* estates; (4) the new demand has been more justly apportioned between the estates and more carefully distributed over the holdings in each estate; (5) the damage caused by floods and by the ravages of wild cattle has practically ceased owing to improved administration; (6) the principle of giving suitable suspensions in bad years has been established. All these facts considerably discount the apparent great increase in the demand, and the readiness of the people to accept the new assessments not only in *khalsa* estates, but also in *mafi* villages where they were given the option of adhering to the old system, is, I think, a proof that they are reasonable and moderate. The present report deals with the four southern tahsils, which are the most favoured by nature and should be the most prosperous in the State.

4. The method of working is that explained in paragraph 2 of last year's report. M. Hira Singh, Deputy Collector, who has already carried through the

Method of working.

operations in four tahsils, is in direct charge of the Bhusawar tahsil, and Mr. H. Pyster holds charge of Rupbas, Biyana, and Oochain. Settlement operations were systematically undertaken in October 1898. Soils were classified, the maps were brought up to date, and the work of preparing an accurate record-of-rights representing the facts of the year 1898-99 was taken in hand. This was a work of considerable difficulty owing to the fact that no regular settlement had previously been made and such records as were available were incomplete and untrustworthy. Concurrently with the preparation and local attestation of the records, the circle officers inspected every village, recorded assessment notes, disposed of disputes and difficulties in the way of preparing the records. When the data for re-assessment were complete I made a village-to-village tour of each tahsil, viz., Bhusawar, Rupbas and Oochain in November and December 1899, Biyana in March 1900—during which I carefully inspected every village in Rupbas and Oochain and all but two in Bhusawar.

In Biyana I had to leave about 50 estates over till next *khari*f as owing to the drought the crops had been cut early in March and there were difficulties about camping. These however I intend to inspect before giving out their assessments. In the course of these tours I endeavoured to ascertain all the facts and circumstances bearing on the assessment of the tahsil as a whole and of each estate. All villages where the assessment had broken down and which owing to the desertions of the owners or their refusal to accept liability had come under direct management received special attention. In most cases by the remission of most of the arrears, by arranging for a just system of distributing the demand, and by the judicious grant of *takavi*, the old owners were encouraged to resettle and resume cultivation. This in a famine year and on the eve of a re-assessment was a most encouraging symptom, and the credit of its success in Bhusawar, where such cases were most numerous, is mainly due to the tact, sympathy and zeal with which the Deputy Collector M. Hira Singh approached the work, thereby inspiring confidence into the people.

5. A reference to the attached map will help to explain the position and boundaries of these tahsils. Each of them

Position and boundaries of the four southern tahsils.

except Oochain touches foreign territory, and all are influenced by the two great torrential streams—the Banganga and Gambhir and their tributaries. Rupbas the most eastern, is triangular in shape and juts into the Agra district which runs along the two sides, while the base or western side rests on the Oochain tahsil. A continuous range of hills, rising at the highest point to 817 feet above sea level, forms the southern boundary with Agra, and some scattered hills also penetrate from Biyana on the west side. The rest is a level plain of a stiffish black soil sloping gently from the hills on the south to the Gambhir which traverses the tahsil from west to east. On both banks of and to the north of the Gambhir the soil is light but fertile.

Oochain is a level plain (except for a few hills on the south-east boundary) surrounded on all sides by Bharatpur territory, irregular in shape, and largely influenced by the annual floods of the Banganga and Gambhir, which have their junction in this tahsil at the village of Karka. The soil except in the vicinity of these two streams where sandy deposits have not altered its natural character is stiff and fertile, especially on the south-east adjoining Rupbas, and with good floods or abundant rainfall yields excellent crops, but the well water in the northern villages adjoining Bharatpur and Akhegarh is often saline. As in Rupbas there is a gentle slope from south to north.

The Bhusawar tahsil on the west including the temporarily-forfeited *Jagir* of Ballabgarh touches Jaipur on the west and south. A broad but low range of hills on the south separates it from Biyana, and the land on this side is rocky, uneven, and much cut up by the hill drainage. There are also several scattered hills on the south-east round Weir. The northern portion is traversed from east to west by the Banganga and is all a level plain of fairly good loam sloping gently to the north. Well water is sweet and *chahi* cultivation excellent except in a few villages towards the north boundary, where the brackish or bitter water of the central tahsils reappears.



The large tahsil of Biyana occupies the extreme south of the State and from east to west marches successively with the Agra district and the State of Dholpur, Karaoli and Jaipur. The south-east is composed of low hills often covered by a dense growth of low jungle and sometimes enclosing fertile valleys in which the rough Gujar inhabitants keep many cattle, and carry on cultivation with very fair success from numerous wells. This tract is intersected by the Kakund stream from the south, which is joined by numerous deep *nalas* running down from the hills, and pursues a course due north to join the Gambhir.

The south-east known as the "Nahera" is also a wild and uneven tract made up of alternate bare sandstone hills and undulating sandy plains while the hill drainage has in many places scarred out into almost impassable ravines. At Damdama near Biyana town the hills rise to a height of 1,222 feet and are crowned for a circumference of 7 miles by the forts and ramparts erected by the Lodi dynasty when they made their capital on the site of the renowned Rajput stronghold of Biyana. This tract is intersected by the Gambhir stream running south-west to north-east and its numerous affluents.

The centre and north of the tahsil known as the "Kather" consist of a level plain crossed from east to west by a single low and narrow ridge of hills. It is traversed by the Gambhir and Banganga, benefits much from their inundations, has a clean fertile soil, water plentiful and generally sweet, and in consequence has perhaps the best *chaki* cultivation in the whole State.

6. From the above remarks it will be seen that the natural features which

General description of the chief streams. have most influence on cultivation are the

Banganga, Gambhir, and Kakund streams, and their affluents. All of these are torrential streams which rise in adjoining States, are fed by the annual rains, and then bring down enormous silt-laden floods with great velocity often inundating the country on both sides for miles and completely cutting off communications for days. After the rains they dry up completely, but the land flooded by them unless injured by sand deposits, produces excellent spring crops; the wells for a considerable distance along their course permanently benefit by having the water level raised and the water made sweet and abundant; while their sandy beds are covered, especially in the case of the Gambhir, with a thin layer of ash manure and are sown with wheat, barley, melons or vegetables. These crops are irrigated from *chokas* or holes dug in the sand which rapidly fill with water by means of buckets worked with the hand, and the yield of grain on these highly-manured and well-watered little plots is often phenomenal.

7. The Banganga or Utangan stream is important not only because of its

The Banganga.

influence on cultivation in Bharatpur, but also because it has been the subject of long and vigorous controversy with the Jaipur State from which it comes, and the Agra district whither it goes. The Banganga rises among the Jaipur hills about 30 miles due north of Jaipur city.

It runs for a length of about 30 miles in a south-easterly direction to

(a) Its course.

Ramgarh Jamwa 15 miles north-east of Jaipur, where it forces its way through a narrow passage between the hills into the eastern plains. The catchment area in Jaipur up to this point is 324 square miles. The Jaipur Darbar had long been desirous of constructing a great irrigation dam at Ramgarh which would utilise for irrigation all the supply up to this point, but the Bharatpur Darbar resisted the project on the ground that it would cut off a considerable portion of the Banganga floods. Finally in 1897 it was arranged that Jaipur be allowed to construct the reservoir on accepting the condition that the Bharatpur Darbar should be entitled to submit to the final arbitration of the Agent to the Governor-General its claims to compensation for damage (if any) actually caused by the work. The dam, I believe, is still under construction, and its influence on the Banganga supply in Bharatpur has not yet therefore made itself fully felt.

From Ramgarh the Banganga runs due east receiving the drainage of the central plains of Jaipur and of the hilly tracts in the south of Alwar.

The catchment area east of the Ramgarh dam is in Alwar 401 square miles in Jaipur 1,065, or a total of 1,466 square miles. After a further course of miles almost due east, it joins the Bhusawar tahsil of Bharatpur at Kamal and has a catchment area of 142 square miles among the hills in the south Bhusawar. From this point it runs still almost due east for a distance of 30 miles through the Bhusawar, Biyana, and Oochain tahsils to Karka in Oochain where it was formerly joined by the Gambhir stream from the south. The combined streams were now practically the Gambhir alone, as the Banganga joins it before reaching the old junction, continue its course still due east for a distance of 25 miles through the Oochain and Bhusawar tahsils, and then it crosses the boundary between Agra and Bharatpur, to the Karaoli tahsil of Agra, and after a further course of about 80 miles through Karaoli, Karkh, and Fattchabad tahsils of Agra finally join the Jumna on its right bank about 235 miles east of Fattchabad and about 235 miles from its source. It is said to have the name of Banganga or "arrow-Ganges" from the legend at during the wanderings of the five Pandava brothers, water having failed at Durin, Arjuna the famous archer drove an arrow into the ground and from the point where the arrow struck the fountain which is the source of the stream. From the junction of the Banganga with the Gambhir, when sudden freshets came down, it is also known as the *Shar* or *overthrower of horses*. The course of the Banganga through the hills is about 30 miles to its junction with the Gambhir at Karka and from the junction to Moroli where it leaves Bharatpur for Agra. It is most of its course a broad, shallow, sandy bed. The banks especially on the north side are low and are covered often to a distance of two or three miles from the streams with dense growth of jungle grasses known as *sarkanda kans*, or with the shrub known as *jau*, all of which grow freely in the deposits of sand left by the periodical inundations.

These inundations which when not controlled were often the cause of enormous damage not only to Bharatpur but to parts of the Agra district, but are now owing to the skilful measures for utilising them adopted by Mr. Deyenish, the State Engineer, the mainstay of the prosperity of these tahsils, are thus explained in a note dated 28th February 1893 by Mr. Palmer, Executive Engineer, North-West Provinces, who was put on special duty to report on the measures to be taken to reduce the floods.

"The catchment lies entirely among steep hills and gives rise to sudden floods; the river bed is remarkably steep and the very high velocity its floods thus obtain brings down great quantities of sand more or less in suspension during most of the journey. As soon as such a flood reaches flatter ground, the velocity is decreased and it begins to deposit silt; and if the decrease of velocity is sudden it deposits more silt than it can push on and thus chokes its channel. This is the real disease of the Banganga, and its condition now is such that it may burst through at Dharsoni, or at Thilehahi, or at Ghazipur or above Khanpur; and it may possibly burst through all these places in succession."

In another note dated 24th November 1892 Mr. Palmer gives the history of the more important breaches or spills.

"Some obstructions at the old month (where it joins the Gambhir)—perhaps a very high Gambhir flood—led to the first spills there; then the changes made there increased the evil and a spill channel was formed from Karka; then that began to fill up, and in 1885 a spill broke through near Farsu; now the Farsu-Oochain spill is silting up, and a new one has started between Barkhera and Kherli, and here there is a pause. This is the point we are now at. Just above Farsu there is a gap through the hills to the south and a great spill has formed itself to the south through Nagla Khushfaim. The slope of this spill is greater than that of the torrent, and it is therefore able to keep itself clear. It runs directly into the Gambhir; that more continuous river runs for four to five months after the Banganga has dried up, and it gradually removes the surplus silt brought down by the spill."

Mr. Palmer then notices the destructive effects of these floods, especially those of August 1885 and of September 1891, not only in Bharatpur but in the Karaoli tahsil of Agra where the *kharif* crops were swamped in nearly 100 villages and large suspensions and remissions of land revenue had to be given. He adds—

"The tract thus liable to flooding from the Banganga bears everywhere the marks of a decaying agriculture, the jungle is plainly increasing and the population decreasing, while

rents have so fallen off that it has become necessary to reduce the land-revenue charges on a great number of villages to preserve their zamindars from a more general ruin than has already befallen them, and the reduction has risen to over 80 per cent. of the revenue in several villages."

Apparently the chief danger to the Agra district lay in the possibility of

(c) Proposals for reducing the inundations. the Banganga floods—all of which except the spill at Khushfaim to the south-

break out on to the low ground to the north of the torrent—joining the Khara *nadi*, which carries the overflow from the swamps east of Bharatpur into the Karaoli tahsil of Agra, and thus completely swamping a large portion of that tahsil in seasons of heavy rainfall. To provide against this emergency it was proposed to deepen the spill channel to the south at Khushfaim so as to divert the Banganga back into its old junction with the Gambhir, by which a sufficient waterway is provided for the passage of the floods to the Jumna. The Bharatpur Darbar objected to this proposal on the ground that it would (1) reduce the annual Banganga floods which though occasionally disastrous to individual villages are on the whole beneficial to the State, (2) deteriorate the fertilising influences of the Gambhir silt by the admixture of the sterilising Banganga sand. In March 1894 the whole subject was threshed out by Colonel Harrison, Secretary, P.W.D., Irrigation Branch, of the North-West Provinces, and Mr. White, Secretary, P.W.D., of Rajputana and Central India, who made a joint tour of the affected area. The weight of the objections raised by Bharatpur was recognized, and as the Bharatpur Darbar had meantime appointed a qualified Engineer to control the floods in its boundaries, the Government of the North-West Provinces in a letter No. C. 5521, dated 6th August 1895, agreed to the Khushfaim project being dropped

"on the understanding that measures are being taken by the Bharatpur Darbar towards diminishing the violence of excessive floods from the Banganga, and that this Government will be consulted as regards projects prepared by Engineers in the Bharatpur State."

It was added—

"that the prosecution of the scheme for storage of some of the waters of this river in the Jaipur State appears to be in the highest degree desirable."

The execution of this scheme, *viz.*, the Ramgarh reservoir, has been already alluded to.

Since 1895 there have been no further complaints of damage in Agra by

(d) Utilisation of the floods for irrigation. Banganga floods, partly—perhaps because the rainfall of recent years has been

moderate, but chiefly because the irrigation works undertaken for the proper distribution of the floods by Mr. Devenish, Executive Engineer, have enabled the supply to be fully utilised in Bharatpur and converted them from a curse into a blessing. He writes—

"The conditions now are that we use nearly all, if not all of the floods of the Banganga river. It is possible that in an exceptionally heavy flood, a small proportion of the water finds its way beyond the Bharatpur borders. We use certainly all the water of moderate and light floods for irrigation. This use of the water has been effected by the restoration of old works and by the construction of new channels and banks."

(e) Chief irrigation works on the Banganga.

The principal works now fed, or to be fed, by the Banganga floods are—

(1) The Pathana canal—north bank—in course of construction, bed width 30 feet, to be enlarged subsequently to 50 feet. This is estimated to irrigate 10,000 *bighas* chiefly in Akhegarh tahsil.

(2) Ullupura canal, south bank, bed width 20 feet. This is an old work intended to fill the Attaripur *band* in Bhusawar, but it has a bad head and has not yet worked freely. A new head has now been selected further down the stream at Mala Hera, from which a channel 30 feet wide is being dug, and this is estimated to irrigate 2,000 *bighas*.

(3) Haleyna canal, north bank, bed width 50 feet. This takes out of the river at the site of the old spill at Thilehabi, now irrigates 4,000 *bighas* in Bhusawar and Oochain, and when completed is estimated to irrigate from 20,000 to 40,000 *bighas* in these tahsils, and also in Kumher.

(4) Lalpur canal, south bank, bed width 50 feet. This has a length of four miles and feeds the Lalpur *band* in Bhusawar and the following subsidiary *bands* through the sluices, Jiwad, Lohasa, Jatpura and Ajrond. Last year it is said to have irrigated 4,000 *bighas*. When fully utilised by the flooded land being brought under cultivation it will irrigate up to 10,000 *bighas*.

(5) Oochain canal, north bank, bed width 50 feet. This utilises the Sewar-Oochain road which has been raised and strengthened for a length of 7 miles to act as a training work, and had 8,000 *bighas* of cultivation last year, nearly all in Oochain, including the contents of several subsidiary reservoirs fed from the sluices under the road. This area can be raised to 10,000 *bighas*, and this canal also fills the fine Sewar *band* in Bharatpur which already has 3,000 *bighas* of cultivation.

(6) Similarly the natural spill from the Banganga around Farsu is being controlled and utilised by means of the Oochain-Biyana road now being restored and constructed as a training bank with flood-escape openings and regulators. This irrigated 4,800 *bighas* last year in Oochain, and when the works are completed will in good years irrigate 10,000 *bighas*.

(7) The Ajan *band* system in Bharatpur, which was fully described in para. 7 of last year's report, is also fed by the Banganga floods. The development of this is one of the most promising schemes in the State. The cultivated area in these villages—formerly the most depressed and miserable in the whole State—has risen from 5,000 *bighas* in 1896-97 to nearly 20,000 *bighas* last year, and when the enormous areas of waste now given out for cultivation on special terms (see paras. 65 and 66 of last year's report) are fully utilised, it is hoped that the area will rise to 50,000 *bighas*. Besides these main works which are dependent on artificial channels, there are several well defined spill channels, of which Mr. Devenish writes—

“The flow of these has also been tapped and utilised by the construction of embankments and cuttings. During the last 5 years we have been engaged in improving the storage and distributary system.”

The area so irrigated by natural spill from the Banganga is about 10,000 *bighas*, and when the large areas of waste along the Banganga have been cleared for cultivation under the special arrangements now being made, this, it is hoped, will be doubled.

Altogether about 60,000 *bighas* of cultivation were irrigated from the Banganga last year, *viz.*, 25,000 *bighas* in

(5) Area irrigated at present.

Bharatpur tahsil and about 35,000 *bighas*

in Oochain and Bhusawar. When the projects now under construction are completed and arrangements for the cultivation of the flooded waste lands perfected, this area will probably be doubled, so that in five years if the present efficient management is maintained, sufficient funds allotted for the works, and the active co-operation of the Revenue authorities insisted on, the Banganga floods should irrigate from 100,000 to 125,000 *bighas* or 40,000 to 50,000 acres of excellent cultivation, and will become the most valuable asset the State possesses—more valuable even than the Ruparel. Hence any scheme to cut off or reduce the supply by the construction of dams or irrigation works higher up the stream, as in the case of the Ramgarh reservoir, should in the interests of Bharatpur be sternly resisted, for there is no doubt now that the floods can be fully utilised in Bharatpur.

8. Practically the whole volume of the Banganga is now tapped by means of the artificial channels or natural spills before its point of junction with the

The Gambhir.

Gambhir at Karka, and the inundations east of that point are those of the Gambhir. The Gambhir differs from the Banganga in having a less licentious channel contained within wide, well-defined banks which it rarely breaks through, and in depositing very fertilising silt. It rises near Khera in Jaipur and runs almost due east for a distance of about 40 miles before it touches the south-east of the Biyana tahsil. For a few miles it forms the boundary between Bharatpur and Jaipur and then runs due east for a length of 10 miles as far as Secundra receiving the drainage of the Nahera tract on the north through

the Talra and Gaddi Khor *nalas* and of the Dang tract in the south through the Raseri *nala*. From Secundra it runs almost due north past the town of Biyana, where it is joined by the Maidani *nala* bringing down the drainage of the Biyana hills. At Naddigaon, 12 miles north of Secundra, it is joined by the Kakund stream, or rather by such portion of it as escapes through the Barota dam. It then takes a curve to the north-east and after a further course of 8 miles joins the old bed of the Banganga at Karka in Oochain. Up to this point the inundations never extend beyond the well defined banks, within which however there is a large area of excellent *chahi*, *khatili* and *sairaba* land producing as fine crops as any in the State. From Karka it strikes due east, and as the channel, owing probably to the former sand-deposits of the Banganga, is shallower and the banks lower, the stream thenceforward begins to exhibit the capricious qualities of the Banganga, and breaks out into inundations which extend through Bhainsa in Oochain up to the Ajan *band*, and also through Chandauli, Khanwa and several villages of Rupbas on the north into the Agra district, while on the south side it is tapped by channels at Dahnagaon and Bokoli, which are carried through cuttings between the hills to fill the *bands* and irrigate the centre of the Rupbas tahsil. In its course east from Karka the stream deposits sand in profusion, but the soil though light in appearance is very productive and yields excellent crops of *bajra* and *til* in the *kharif*. About 12 miles east of Karka, at Undel Jat, the stream (which though now really the Gambhir still retains its old name of Banganga) begins to form in an intermittent way the boundary between Bharatpur and Agra. At Singholi further east it overflows into the Khari *nala* which entering Rupbas from Biyana on the south-west traverses its entire width till it joins the Banganga at Melhartha on the extreme east of the tahsil bringing the drainage of most of the Rupbas tahsil. The spill into this *nala* overflows and fertilises the eastern villages of Rupbas. The course of the stream after it leaves Rupbas for Agra has already been described.

It has a separate channel through Biyana and Oochain for a length of 35 miles before it joins the old bed of the Banganga at Karka, and a length of 25 miles from Karka before it finally leaves the Rupbas tahsil at Morori. This will explain what a far reaching influence the stream has in these tahsils and that influence is entirely beneficial, while the vagaries of the Banganga proper are often decidedly destructive. No great irrigation work has yet been constructed on the Gambhir, but the Executive Engineer is on the look-out for a favourable site.

9. Of the affluents already mentioned the largest is, or rather was before the Barota *band* was constructed, the Kakund.

The Kakund stream. This rises in the temple of Kaila Devi among the Karaoli hills 30 miles to the south of the Biyana boundary which it enters at the village of Gordha among the hills of the Dang. Up to this point its course is over a rocky plateau from which it descends by a series of falls at Gordha, and pursues its way between the parallel chains of hills for a distance of 8 miles to the hamlet of Barota where the hills close in, and are now united by a magnificent masonry dam which effectually holds up the stream, and by means of which over 10,000 *bighas* of *khalsa* and *masi* land were irrigated last year.

10. This work was begun by Lieutenant Home, the State Engineer, in 1866, but abandoned in 1869 on the accession of the late Maharaja after about

The Barota *band*. Rs. 70,000 had been expended on it and the dam had been carried half-way across. The work was resumed by the present State Engineer, Mr. Devenish, in November 1895. The dam was not sufficiently advanced to hold up the flood of 1896, and suffered some damage from the high floods of that year. Work was speedily resumed, and the dam was completed in time to catch and successfully hold up the floods of 1897. Owing to the ducts or masonry channels not being ready in that year there was no irrigation through the sluices and little cultivation within the dam as in order to test and consolidate the latter little water was run off. Meantime the construction of the three ducts or irrigation channels running north from the sluices was being steadily pushed on, though the uneven and raviney country through which they pass rendered the work tedious and costly.

In the rains of 1898 the water impounded covered an area of 3 square miles in the rear of the *band* with a cubic content of 700 million cubic feet. About 2,000 *bighas* were irrigated. In 1899 the dam filled up to escape level—45 feet above the bed—and the area submerged was 5 square miles with a cubic content of 1,500 million cubic feet.

Two of the irrigation channels had meantime been wholly and the third partially completed. The drought of the past year caused a brisk demand for water for the irrigation of both *kharif* and *rabi* crops and every effort was made to meet this. The results were most satisfactory. A total area of 9,328 *bighas* was irrigated from the sluices, *viz.*, 6,192 *bighas* in 17 Biyana villages and 3,136 *bighas* in 4 Oochain villages. While an area of 1,017 *bighas* was cultivated within the *band*. Most of the land irrigated from the sluices received from 2 to 6 waterings and the *rabi* crops of wheat, barley, gram, when I saw them in March last were first-rate except in one or two villages at the tail of the irrigation channels. The dimensions of the dam are as follows—Length  $\frac{3}{4}$  mile, maximum height 55 feet, maximum width at base 400 feet, capacity below escape level 1,500 million cubic feet. The dam has a catchment of over 70 square miles of rocky ground. The total expenditure since the work was taken in hand in 1895 has been about 2 lakhs, but I estimate that the value of the crops, over 10,000 *bighas*, grown in the first year of working would more than cover this capital cost. Even this year owing to two of the channels not having been ready till the season was rather advanced not more than half the supply was utilised for irrigation, and in future we can safely count on about 25,000 *bighas* being irrigated in an average year, of which about three-tenths would be in the Oochain villages around Rudawal and seven-tenths in Biyana. The limit of irrigation is the Gambhir on the west and north. Besides the direct benefits by sluice irrigation to villages in the rear of the *band*, many villages close to it benefit by the proximity of a large body of water which raises the water-level and makes the supply in the wells sweet and abundant. On the other hand there are four villages within the submerged area which have lost heavily as their village-sites have had to be shifted, their wells have collapsed or been choked with silt, and much of the area being under water all the year round has been rendered permanently unculturable. It is not creditable to the State administration that these sufferers for the general weal should so far have received no compensation. I am now enquiring into the losses they have sustained and propose to give them compensation by a proportionate reduction of the revenue or the water-rates for the term of settlement. I may here explain that all of the Bareta irrigation charges will be kept apart from the land-revenue and will be a fluctuating demand assessed year by year on the area irrigated and the crops grown. The rates provisionally adopted for the present year are.

<i>Kharif</i> crops	Sugarcane	...	Rs. 3 per <i>bigha</i> .
	Cotton and maize	...	" 2 "
	Other crops	...	Re. 1 "

*Rabi* crops. Re. 1 to Rs. 2 per *bigha*, according to situation, quality of crops and number of waterings.

For future working rates will be fixed after consultation with the Executive Engineer and the Revenue Department with the sanction of the Political Agent and Council.

11. The Kakund, or such portion of it as leaks or is allowed to escape through the Bareta *band*, strikes north-east in a deep and well-defined channel which has water in creeks and pools all the year round. The villages along the bank irrigate from these by means of *dhers* and *jhalars*, and there is also some excellent *khatili* cultivation in the bed. The stream finally joins the Gambhir at Naddigaon about 10 miles north of the dam.

The Banganga, Gambhir, and Kakund are the streams which have a general influence on agriculture. There are other *nalas* or hill torrents which are more

or less utilised to fill the minor dams so common in this tract. These will be noticed in the description of each tahsil.

12. The following description of the mountains in this tract is borrowed from the Rajputana Gazetteer (Vol. I, page 134) :—

#### Mountains.

"The Sidgirpahar range runs on the south-east frontier between the *parganas* of Rupbas and Biyana of Bharatpur and Sarhendi of Agra. The general direction is from north-east to south-west and the length about 30 miles; the highest point is Usera, 817 feet. In it are situated the celebrated Bansi-Paharpur stone quarries. The range becomes broken in the southern part of Biyana into irregular branches which help to form the district called the Dang, a tract completely broken up with ravines, very difficult of access and covered with jungle, the highest portion forming a plateau. North-west and parallel to this is an interrupted range running through Rudawal to the south of Biyana which by its southern extremity helps also to form the Dang.

"The other hills in the south consist of two broken irregular ranges running generally in a parallel direction with several offshoots through the *parganas* of Weir and Biyana from north-west to south-east. The highest point is Damdama (near Biyana) 1,215 feet. These hills are separated from the Sidgirpahar range by the Gambhir river."

The hills though they cover a large area especially in Biyana and the south of Bhusawar are low, and except in the Dang rather bare of vegetation. One cause of this is that all the hillsides are the property of the villages. None belong to the State, and therefore nothing has been done to prevent deforestation.

13. As Bharatpur forms part of the alluvial basin of the Ganges and Jumna,

#### Geological formation of the hills.

the great majority of the exposed rocks are alluvial consisting of modern alluvial deposit with blown sand which the wind carries from the desert of Rajputana and occasionally forms into mounds to the leeward of some natural inequality in the surface. The main range already referred to consists almost entirely of sandstone of various texture and colour, varying from a very fine rock to almost conglomerate. The prevailing colour is brick red with white spots or streaks sometimes green and yellowish-white occurring in alternate beds of considerable thickness. It is in this that the most valuable quarries are found of the famous red and white Rupbas sandstone from which the finest palaces, mosques and temples of Dehli, Agra, Muthra, Dig and Fatehpur-Sikri have been constructed. Both varieties of stone are in considerable demand, and Bharatpur is in the happy position of having a monopoly of the best kinds. The rates of duty charged by the State on sales to outsiders are per 100 maunds, Rs. 8 for the red and Rs. 20 for the white sandstone which is rarer. The net income, which has risen considerably since the management was taken over by the Executive Engineer in recent years, has been—

1896	...	Rs. 17,072
1897	...	" 19,882
1898	...	" 17,522
1899	...	" 23,279

This leaves out of account the large quantities of stone supplied for State purposes.

The ridge running parallel with the main range through Rudawal consists generally of sandstone in massive strata and false bedded flags, usually hard and compact, occasionally vitrified, and reddish or yellowish in colour. In some places thick shaly beds, mostly of quartz or silex, but sometimes of clay are found. The hills west of Biyana and divided from the Sidgirpahar by the catchment basin of the Gambhir river are formed of quartzite, sandstone, with strata of trap and shale. Copper and iron are found, but not in quantities large enough to repay the cost of working. The stone too is less valuable for building or ornamental purposes.

Generally speaking the red sandstone is inferior for architectural purposes to the white owing to the irregularity of its colouring, also to the liability of some specimens to disintegration from the effects of time. The red variety is remarkable for perfect parallel lamination in consequence of which it can by means of wedges be readily split up into flags or slabs of any required thickness. Hence its suitability for roofs and floors.



The white or cream-coloured variety is uniform in colour and texture, and therefore suitable for the most delicate and elaborate effects in carving. Owing to the thickness of the beds it can be procured in slabs of great size. For these reasons it lends itself peculiarly to architectural effect, as the palaces of Dig, the cenotaphs of the Bharatpur Maharajas at Govardhan, and the temples of Muttra and Brindaban testify.

14. The leading features of each tahsil will now be separately described, but Summary of statistics of these these may be prefaced by a few leading tahsils and of the whole State. statistics of area, cultivation, population, and revenue as given in the table below. The standard of measurement throughout the State is the Raj *bigha*—the square of a chain 132 feet long—which is equal to  $\frac{2}{5}$  of an acre, so that 1,600 *bighas* go to the square mile.

Tahsil.	Detail.	Number of estates.	AREA.		Revenue.	Revenue with all cesses.	POPULATION.			INCIDENCE OF JAMA.		
			Total.	Cultivated.			Total.	PER SQUARE MILE.		Per head.	Per acre of population.	
								Total area.	Cultivated area.			
										Rs. A. P.	Rs. A. P.	
Rupbas	Khalsa ...	72½	1,69,232	83,049	1,05,855	1,18,184	26,352	231	488	...	...	
	Mafi ...	4½	5,719	3,543	...	...	...	...	...	...	...	
	State property ...	1	7,390	...	...	...	...	...	...	...	...	
	Total ...	78	1,82,341	86,592	...	...	...	...	...	...	...	
Oochain	Khalsa ...	67	2,00,992	1,23,693	1,72,705	1,69,327	43,412	299	493	...	...	
	Mafi ...	7	29,262	19,912	...	...	...	...	...	...	...	
	State property ...	2	2,736	...	...	...	...	...	...	...	...	
	Total ...	96	2,32,999	1,43,605	...	...	...	...	...	1..	...	
Biyana	Khalsa ...	161	4,07,741	1,42,000	2,05,972	2,25,969	62,919	201	623	...	...	
	Mafi ...	16	30,661	19,606	...	...	...	...	...	...	...	
	State property...	1	2,731	...	...	...	...	...	...	...	...	
	Total ...	168	5,01,133	1,61,606	...	...	...	...	...	...	...	
Bhusawal.	(1) Khas	Khalsa ...	123	3,03,810	1,65,119	2,36,489	2,59,969	62,163	295	536	...	...
		Istamrar ...	1	3,134	1,909	...	...	...	...	...	...	...
		Mafi ...	9	20,036	15,241	...	...	...	...	...	...	...
		State property...	3	10,014	3,290	...	...	...	...	...	...	...
	Total ...	136	3,37,694	1,85,619	...	...	...	...	...	...	...	
	(2) Ballabgarh...	Khalsa ...	13	34,399	20,699	34,643	37,617	7,550	328	539	...	...
		Mafi ...	...	2,010	1,126	...	...	...	...	...	...	...
		Total ...	13	36,409	22,025	...	...	...	...	...	...	...
	Total	Khalsa ...	136	3,33,209	1,86,018	2,71,133	2,97,586	69,703	298	538	...	...
		Istamrar ...	1	3,134	1,909	...	...	...	...	...	...	...
Mafi ...		9	22,646	10,367	...	...	...	...	...	...	...	
State property...		3	10,014	3,290	...	...	...	...	...	...	...	
Total ...	149	3,74,003	2,07,614	...	...	...	...	...	...	...	...	



Tahsil.	Detail.	Number of estates.	Area.		Revenue.	Revenue with all cesses.	POPULATION.			INCIDENCE OF JAMA.	
			Total.	Cultivated.			Total.	PER SQUARE MILE.		Per head.	Per acre of population.
								Total area.	Cultivated area.		
Total southern tahsils	Khalsa ...	416½	11,76,164	5,34,720	7,55,035	8,31,276	2,02,416	251	540	Rs. A. P.	Rs. A. P.
	Istamrar ...	1	3,134	1,069	...	...	...	...	...	...	...
	Mafi ...	36½	69,308	59,428	...	...	...	...	...	...	...
	State property...	7	22,670	3,290	...	...	...	...	...	...	...
	Total ...	491	12,90,476	5,99,107	...	...	...	...	...	...	...
Total central tahsils	Khalsa ...	258½	7,00,671	4,03,165	5,64,720	...	2,29,270	381	621	2 15 0	2 15 0
	Chauth ...	1	2,853	1,264	—	add Rs. 7-13-0 per cent.	...	...	...	...	...
	Mafi ...	62½	1,25,227	70,610	(1,00,416 nominal)	...	...	...	...	...	...
	State property...	14	44,350	...	...	...	...	...	...	...	...
	Total ...	436	9,63,301	5,74,069	...	...	...	...	...	...	...
Total northern tahsils.	Khalsa ...	403	7,69,089	5,40,238	7,35,003	add Rs. 7-13-0 per cent.	1,69,050	324	460	4 0 0	3 2 0
	Chauth ...	20	59,029	45,238	...	...	...	...	...	...	...
	Istamrar ...	4	15,600	11,114	...	...	...	...	...	...	...
	Mafi ...	25	79,606	64,391	(86,100 nominal)	...	...	...	...	...	...
	State property...	10	10,549	...	...	...	...	...	...	...	...
Total of State	...	1,395	31,67,449	19,34,457	12,99,613 7,55,655 20,55,468	reassessed to be reassessed.	6,20,645	312	541	...	...

The State has an area of 1,992 square miles, of which 1,147 or 60 per cent. are cultivated. It has a population according to the census made during settlement operations (which though not elaborate is probably more reliable than the 1891 census) of 6,20,645 or 312 per square mile of total and 541 per square mile of cultivated area. The total land revenue is at present Rs. 20,55,468 excluding the 4 *kham* estates mentioned in para. 3 giving an incidence of about Rs. 3-8-0 per head of population and 1,751 per square mile of cultivation or about 2-12-0 per cultivated acre on the present jama, but these figures will be raised by about 2 per cent. in each case when the four southern tahsils have been reassessed. There are in all 1,395 estates, of which 1,208½ estates are *khalsa*, 27 are *chauth* (i.e., pay one-fourth of the rental) 5 are *istamrar*, 31 are State property (*runds*, etc.) and 124 are held in *jagir* or *mafi* embracing about one-eleventh of the total, and one-ninth of the cultivated area. The total number of estates will now be increased owing to the formation of new estates in State or village waste allotted for cultivation.

The four tahsils now to be reassessed comprise about two-fifths of the total, and almost one-third of the cultivated area paying at present 37 per cent. of the total *khalsa* Jama, and contain 32.5 per cent. of the population. Owing to the prevalence of hills and the large areas of sand along the Banganga, Gambhir, etc., only 47 per cent. of the total area is under cultivation. The incidence of population varies from 200 per square mile in Biyana to 298 per square mile in Bhusawar, while on cultivated area it ranges from 483 per square mile in Oochain to 623 in Biyana, the average for the whole tract being 251 per square mile of total and 541 per square mile of cultivated area. The latter is practically the same as for the whole State, which considering the large amount of excellent waste land available for cultivation cannot be considered high. The special features of each tahsil, where they have not been already mentioned will now be discussed.

## TAHSIL RUPBAS.

15. Rupbas is the eastern and smallest of the four tahsils, but its boundaries will be extended when the Oochain tahsil is partitioned. It has a present area of 114 square miles, of which only 54 or 74·5 per cent. are under cultivation. Of the *khalsa* area—106 square miles—49 per cent. is under cultivation, 34 per cent. is culturable, 3·5 per cent. new fallow, and 13·5 per cent. unculturable; so that although cultivation has expanded enormously since last settlement there is still an ample margin for further extension. Of the cultivated area 16 per cent. is *chahi*, 2 per cent. *chahi-sairaba*, 19 per cent. *sairaba*, 1 per cent. *khatili*, and 62 per cent. is dependent solely on the rainfall, *viz.*, 52 per cent. *barani* and 10 per cent. *bhur*. Owing to the deficient rains of late years, and the neglect of the numerous irrigation *bands*, the maintenance of which is essential to ensure a good water-supply in the wells, the *chahi* area has steadily contracted of late years and is now much less than it was at last settlement. 80 per cent. of the wells are sweet, and 20 per cent. bitter, brackish or oily, these being generally found in the villages of the central plain.

The tahsil slopes from the Sidgirpahar range on the south boundary due north to the Gambhir, and up to the Ajan *band* in Bharatpur. It falls into three well-defined natural divisions, *viz.*, (1) the *Wal* or south-western portion lying in the triangle between Rupbas town and the two ranges of hills with 28 villages; (2) the *Dher* or central and eastern portion intersected by the Khari *nadi* from the Singhani *band* in Biyana with 26 villages; and (3) the *Nadwar* or northern portion intersected by the Gambhir and the old channels of the Banganga with 24 villages.

The *Wal* as its name implies is the valley at the foot of or between the hills. These are low barren rocks with no vegetation. Hence no sand is washed down from their slopes by the rain, and there is hardly any light *bhur* in this tract. The soil generally is a stiff blackish clay locally known as *chahar*, usually fertile and productive with abundant rainfall, but in places it has an admixture of *kallar*, and hence is not suitable for *rabi barani* crops—gram or *sarson*. *Jawar* does very well in good seasons, in the central plain around Rupbas. *Bajra* is grown with most success in the lighter soils under the hills. Well water is generally sweet, but the supply is now very low, and great numbers of wells have been temporarily abandoned. One reason for this is that a layer of stone is often met with at a depth of 10 to 30 feet from the surface, and this prevents the surface drainage from soaking into the soil and raising the spring level. Another cause is that nearly every village in this tract has its own *band*, which impounds the drainage from the hills on both sides and the large areas of waste, the filling of which is almost essential for the maintenance of the water-supply in the wells. These *bands* have gone out of repair or owing to the drought have not filled well in recent years, and this at once reacts on the wells. The spring level ranges from 37 to 60 feet, the average being for masonry wells 42 feet and for *kacna* wells 28 feet, while the average depth of water is 9 and 6 feet respectively. The restoration and improvement of these *bands* was taken in hand this year by the Executive Engineer, and most of them will have been completed in time to catch the monsoon rains.

The tract is also intersected by the Khor *nadi* from Biyana, which however flows between deep banks and does not inundate here. Dams have been thrown across it at Bansi and Kherli, where some excellent *sairaba* has been formed Dhana, Jatwansi, etc. The owners of the tract were originally Panwar Rajputs, who still hold 5 or 6 villages around Bansi Paharpur, but they have been dispossessed from the rest by Jats. The people have been severely hit by the drought of recent years, which is most felt in the stiff clay soils, but owing to the carelessness of the tahsil authorities have got into the habit of holding back the revenue even when they are in a position to pay it. If the restoration of the village *bands* is followed by a year or two of good rainfall, the tract will speedily recover its lost prosperity.

The *Nadwas* on the north of the tahsil with 24 villages is so named because it is affected by the action of the combined Banganga and Gambhir streams

(2) The *Nadwas*. (*nadi*) which run right through it from west to east and benefit nearly all the villages directly or indirectly. A range of low hills starts from the river at Bokoli and runs close to it for some distance. Through openings in this channels have been cut as already stated at Bokoli and Dahnagaon, to convey the floods into the central plain around Rupbas. Hitherto these have not been very successful as the floods, owing possibly to the damming of the Kakund, have not of recent years risen high enough, but they are now being cleared and deepened.

The proportion of *sairaba* in these villages is considerable. The soil, owing to sand deposits, is light in texture but very productive even with a moderate rainfall. Even the land classed as *bhur* yields excellent crops of *bajra* and *til* in the *kharif*, and the rents are as high as for the best *barani*. One estate—Khera—on the road between Rupbas and Fatehpur-Sikri is isolated from the rest, and forms an *enclave* in Agra. A few villages on the extreme north lie on both sides of the Ajan *band* (for which see report on the central tahsils) and are irrigated by means of it. Water is near the surface, and fairly abundant, the average being 16 feet to the water-level and 14 feet of water in masonry wells, and 14 and 9 feet respectively in *kacha* wells. In Burana, Posonda and a few more villages on the north boundary adjoining Agra it is bitter; but elsewhere sweet. There is much excellent *khatili* cultivation in the bed of the Banganga, and on its banks a large area of sandy but culturable waste, which is being steadily brought under the plough. This tract is on the whole fairly prosperous even at the present time.

The *Dher* with 26 estates comprises the central and eastern portion of the tahsil projecting into the Agra district. The southern portion along the hills is similar in character to the *Wal*, while the northern portion along the banks of the Banganga is similar to the *Nadwas*. Between the two runs the Khar *nadi* which at Singholi approaches close to and receives the overflow from the Gambhir. Both before and after this point its inundations spread over a large portion of the tract and being regulated by a series of *bands*—almost every village has one or more—its action is most beneficial, and large areas of excellent *rabi* crops are grown on the inundated land. The soil varies from a light loam to a stiff clay and there is much culturable land. Stone is very near the surface in places, and this is a bar to the extension of well irrigation. Water is generally sweet and near the surface, the average being 22 feet to the water and 12 feet of water in masonry wells, and 18 and 9 feet respectively in *kacha* wells. The latter are very numerous. In some places, e.g., Singholi, the water collected in abandoned quarries is utilised for irrigation by means of *jhalars*. This tract though now rather depressed is better off than the *Wal*—the *bands* being in better order and the water-supply more abundant—and has many elements of prosperity.

The tahsil enjoys a fair rainfall, the average for the last 14 years being 23·68 inches, but of this only 1·45 inches falls in the 6 months October to March, and even this is very uncertain; consequently *barani* crops are little grown in the *rabi*. In five years the rainfall has fallen short of 20 inches, while in two it has exceeded 30, the extremes being 33·18 in 1891-92 and 10·35 in 1896-97. Owing to the natural slopes of the country especially in the *Wal* the rainfall unless held up by *bands* or small field-embankments has a tendency to run off into the Banganga.

Rupbas, the centre and headquarters of the tahsil, is only 18 miles distant in a direct line from the railway at Bharatpur, but there is no direct route and cart traffic has to go round by Fatehpur-Sikri, which increases the distance to 24 miles. Even this route is often impracticable in the rains, most of the way being through a low-lying swampy country. The nearest and most popular outlet for traffic is to Fatehpur-Sikri and thence by metalled road

(a) Communications.

to the railway station at Achnera in Agra, which is distant only 16 miles from Rupbas. A good fair-weather unmetalled road for the traffic from the Bansi-Paharpur stone-quarries to Bharatpur has recently been constructed by the Executive Engineer, but this is not practicable for heavy traffic during the rainy months. Another unmetalled road much used for cross-traffic is that from Fatehpur-Sikri to Biyana which passes through Khanwa in this tahsil.

Rajputs, Jats, Brahmins, Gujars and Musalmans are in order the largest land-owning tribes. The first

(c) Agricultural population. named are here as elsewhere indifferent agriculturists and bad revenue-payers, but they hold about one-third of the area and cultivation. The other tribes are of average industry. The tahsil as a whole in spite of the extraordinary increase of cultivation since 1890 (nearly 60 per cent.), has been going down-hill since the drought which began in 1895-96, and has continued with one year's break ever since. The contraction of the water-supply in the wells and the failure of the *bands* are the chief causes of the deterioration, but these are only temporary influences which will be removed by one or two years' good rainfall.

### OOCHAIN.

16. Oochain is the only tahsil in the State which does not touch foreign territory. It has a total area of 146 square miles, of which 90 square miles or 61.5 per cent. are under cultivation. Of the *khalsa* area 61 per cent. is under cultivation, 9 per cent. (including State property) is unculturable, 3.5 per cent. is fallow and 26.5 per cent. is culturable. Thus although cultivation has increased by 20 per cent. since last settlement, the margin of land still available for cultivation is 30 per cent. of the whole. A good deal of this is the dense jungle formed by the Banganga inundations, which will cost much labour and money to reclaim, but there is also a large area of clear level land which will be at once broken up on the advent of more favourable seasons. Of the cultivated area 20 per cent. is *chahi*, 6 per cent. *chahi-sairaba*, 38 per cent. *sairaba*—regularly or occasionally inundated, 34 per cent. ordinary *barani* and only 2 per cent. *bhur*. The latter is found in small quantities along the banks of the Banganga, but chiefly at the foot of the hills separating Rudawal from Rupbas.

The tahsil like Rupbas falls into 3 well-defined natural divisions—(1) the Jatmai with 32 estates in the broad plain on the north-west, (2) the Nadwas in the centre on both sides of the Banganga and Gambhir with 36 villages, and (3) the Rudawal *pargana* which was formerly a separate tahsil on the south and east with 28 villages.

#### (b) Natural divisions.

The Jatmai, so called because the estates are owned chiefly by Jats, is the tract lying north of the Banganga and west of the Bharatpur-Oochain-Biyana road. The villages have a good clean level soil, but the well-water especially on the north towards the Bharatpur-Jaipur metalled road is often very bitter. Hence cotton is hardly grown at all on the wells, and though there is an ample water-supply the *rabi* crop too unless aided by rain is poor. Some improvement has, however, been effected on this side by the Haleyna canal from the Banganga, the spill from which fertilises the soil and aids the wells. The average depth of wells is 22 feet to water and 13 feet of water for masonry wells, and 18 and 10 feet for *kacha* wells. On the south several villages, *viz.*, Mai, Nangla Mai, Alipur, Atari, Jahangirpur, Atari, etc., are benefitted by the inundations from the old or present channels of the Banganga. These have a light soil like the Nadwas in which *bajra* and *til* thrive in the *kharif*, while gram, etc., is sown in the inundated lands. There are few *bands* in this tract, but it will be much benefitted by the extension of the Haleyna canal. This tract as might be expected has suffered severely from the recent drought, but the villages are generally strong communities and only want a few good seasons to recover.

#### (1) The Jatmai.

The Nadwas is similar in character to the tract of the same name in

(2) The Nadwas.

Rupbas. Nearly all the villages are affected by the annual floods of the Banganga and Gambhir, either receiving the natural flow by inundation which in some places has sanded over the cultivation and choked the wells close to the river, or regularly irrigated by the canals along the Biyana-Oochain-Bharatpur road which distribute the floods by means of regulators into a series of retaining *bands*, of which the chief are the Nekpur-Kanwasi and the Churari-Mirki *bands*. The junction of the old Banganga channel and the Gambhir is at Karka in this tract. East of this point the annual floods are now much reduced as the Banganga is exhausted by the numerous natural or artificial channels to the west, and the Gambhir floods are less than they used to be before the Kakund was dammed. Hence Oochain villages east of Karka are now rarely inundated. The wells have in consequence suffered, and the revenue has fallen into arrears, as the *sairaba* land has now become high and dry *barani*. The soil close to the river is light and sandy, but very suitable for *kharif barani* crops. Further north towards Bharatpur it is stiff clay and the water is generally bitter, *e.g.*, in Churari Gujar, gotoli, Bara, Karka, etc. Water in this tract is very near the surface, the average depth being only 13 feet, while the depth of water is 20 feet. Where the inundations are regular the wells are little worked except in years of drought or when the winter rains fail, and then *kacha* wells are sunk in great numbers. The villages of this tract round Oochain have the best *sairaba* cultivation in the State, and even in this year's drought the *rabi* crops were excellent.

The Rudawal *pargana* on the south and east was formerly the most flourishing tract in the tahsil with a good

(3) Rudawal *pargana*.

clay soil—except for the *bhur* close to the hills on the south and east—wells numerous and sweet, and very advanced cultivation including a considerable area under sugarcane. The physical characteristics are similar to those of the adjoining Wal tract in Rupbas, and this tract has similarly suffered from the diminution of the water in the wells and the breaching of the *bands* at Khera, Rudawal, Sirond, Churari, etc. The prosperity of this tract is largely dependent on the village *bands* being kept in good repair and being regularly filled, and they are now being restored and improved. Four estates on the extreme south-west, *viz.*, Bhawanpura, Joreta, Dumariya, and Rudawal, have this year had over 3,000 *bighas* irrigated from one of the canals from the Bareta *band*, and this irrigation when fully developed will help to restore the prosperity of this tract. The water level is about 26 feet and the depth of water 10 to 12 feet.

The average annual rainfall is almost the same as at Rupbas, *viz.*, 24.15

(c) Rainfall.

inches, of which 2.02 inches falls in the six cold weather months. The highest fall since 1896 was 33.23 inches in 1892, the lowest 12.50 inches in 1895-96, and 11.02 in 1896-97. In three years out of the fourteen the amount has fallen short of 20 inches, while in two it has exceeded 30 inches. The deficient rains of 1895-96 and 1896-97 inaugurated a period of severe agricultural depression, and though the rainfall of the last three years has been normal in amount, that of the last two has been very badly distributed owing to the failure of the autumn and winter rains and the tahsil has therefore not had a chance of recovery. On the other hand the improvement of irrigation has been of immense benefit to a great number of villages.

The present Jama is now very uneven. While it falls lightly on several of the canal-irrigated villages, it has become

(d) General condition of the people.

oppressive in several villages on the east which no longer receive the Banganga inundations. Moreover this inequality has been accentuated by a very bad distribution of the revenue instalments. When the present assessment was fixed the *rabi* was the chief crop in these villages, and the *rabi* instalment was fixed proportionately high. These villages now grow chiefly *Kharif* crops and discharge the *kharif* demand in full, but when called on for the *rabi* demand point to the fact that they have little or no *rabi* crops. A proper revenue administration would have met the difficulty long ago

by altering the instalments to agree with the relative importance of the harvest. But this simple remedy has been overlooked, and till last year the consequence was much larger arrears than were justified by the combined results of both harvests.

The tahsil is well served in the way of communications. An excellent

(e) Communications.

metalled road connects the tahsil headquarters with Sewar and Bharatpur, 7 and 11 miles distant respectively. There is a good unmetalled road from Oochain to Biyana, but this is often rendered impassable in the rains by Banganga inundations. The Rudawal *pargana* is not so well off, as the Gambhir and Banganga come between it and the railway at Bharatpur; but the road recently constructed from the Paharpur quarries to the capital has improved things somewhat. Rudawal itself is only 20 miles from the railway.

The agricultural population consists mainly of Jats, 30 estates, Sinsinwar

(f) Agricultural population.

Jats 12, Gujars 18½, Brahmins 14 and Rajputs 6. So that the industrious classes predominate. The two estates shown as State property are the town of Oochain which has no *khalsa* land attached to it and the State Rund of Karka. Having regard to the extension of cultivation and the development of irrigation the present jama cannot be considered high. It is however very unequal. Some villages with a large *sairaba* area are very lightly assessed and have benefitted enormously by the high prices of recent years, while others have given up struggling to pay an oppressive demand and were content to come under direct management or to accumulate arrears.

## BIYANA.

17. Biyana is by far the largest tahsil in the State, having a total area of 313 square miles, of which only 101 or less than one-third are under cultivation.

(a) General description and soils.

About 150 square miles or 48 per cent. of the area is unculturable, of which hills occupy 100 square miles. Of the *khalsa* area 30 per cent. is under cultivation, 52 per cent. unculturable, 2 per cent. recent fallow and 16 per cent. culturable. Much of the so-called culturable is however very inferior, uneven, stony or sandy land in the Dang or Nahera, and this is the reason why the expansion of cultivation has been much less than in other tahsils, being only 5.5 per cent. since last settlement. The unculturable land offers at certain seasons excellent grazing to sheep, goats and even big cattle, of which the Gujars of the *Dang* and *Nahera* keep very large herds.

Of the cultivated area 31 per cent. is *chahi*—a higher proportion than in any tahsil except Bharatpur—2 per cent. *chahi-sairaba*, 13 per cent. *sairaba*, 44 per cent. ordinary *barani* and 10 per cent. *bhur*. The area of *bhur* in the *barani* cultivation is rather under-estimated and much of even the *chahi* land in the *Nahera* belongs to this class. The *bhur* of the *Nahera* and *Dang* is generally of a very inferior kind and grows only the poorest *khari* crops.

As already explained there are three great natural divisions in this

(b) Natural divisions.

tahsil—(1) the Kather or northern portion with 92 villages—the richest and most highly cultivated in the tahsil; (2) the Nahera or uneven sandy and rocky ground lying south-west of Biyana town up to the Bhusawar and Jaipur boundary and traversed by the Gambhir, with 45 villages; (3) the Dang embracing all the rocky hills and the intermediate valleys lying to the south of the Barota *band* and running into the tracts of the same name in Dholpur and Karaoli. This has 31 villages, of which 8 on the high plateau to the south which slopes towards and drain into Agra are known as the Upper Dang, and the remaining 23 in the valley of the Kakund lying between the two chains of hills referred to in para. 12 are included in the Lower Dang.

Except for a low narrow ridge of hills which penetrates from Weir on

(1) Kather.

the west and run due east almost parallel to the Banganga for a distance of 6 miles with an opening at Agaoli through which the Banganga spill formerly passed into the Gambhir (see para. 7), the Kather is all a level plain sloping gently to the north-east. It is traversed from west to east by the main

channel of the Banganga which enters this tahsil from Bhusawar at Barkhera and deserting the old channel due east past Farsu breaks out north towards Oochain. The Gambhir from the south runs almost due north dividing the tract almost equally, and then taking a sharp turn east joins the old channel of the Banganga at Karka in Oochain. To the influence of these two streams the tract owes its large area of excellent *sairaba* and *khatili* land, and indirectly its unequalled *chahi* cultivation. The action of the Banganga has however in the past been very capricious, the frequent changes in its channel having all but ruined several villages by sanding over the cultivation, choking up, or carrying away the wells, flooding the village sites and transforming rich expanses of cultivation into sandy wastes. The deterioration is found chiefly in villages close to the old channel, *e.g.*, Farsu, Barkhera, Rundhera, while villages further to the north and south have benefited enormously by the fertilising influence of the floods, which deposit the sterilising sand soon after they leave the channel. The *khatili* cultivation in the bed of the Banganga is poor owing to the excessive amount of sand, while that of the Gambhir is excellent. The Gambhir also remains in flow longer than the Banganga, and there is some irrigation from *jhalars* on its banks. The Kakund or such portion of it as escapes from the Bareta band traverses the eastern portion of the tract. Up to its junction with the Gambhir at Naddigaon it is in more or less intermittent flow throughout the year and has some very good crops in its bed, while the villages along the banks irrigate from it by means of *jhalars* and *dhenklis*. Almost parallel with the Banganga runs the Jogi Nadi from Bhusawar on the west. This receives the drainage of the hills on both sides, has a deep but narrow channel, and is a considerable torrent in the rains. Its overflow joined by the Banganga spill to the south forms a considerable swamp at Agaoli and Jhilka Bara on the Oochain-Biyana road and is very beneficial to the villages lying east of the road. It finally joins the Gambhir near Karka in Oochain. The large band at Khatnauli where it enters the tahsil on the west is now being renewed to hold up and distribute the waters of this torrent, and the Richoli band on the east has also been restored. The southern portion of the Kather is fringed by more or less continuous hills, the drainage from which runs into the Gambhir and to intercept this there is a considerable series of *bands* which play an important part in the local agriculture. Many of these have been restored and extended by the State in recent years, and the rest were vigorously taken in hand this year, and will be completed before the rains.

The soil of this tract in the northern villages adjoining the Banganga is often light though productive and on the south towards the hills is frequently sandy or stony and uneven as in the adjoining Dang and Nahera tracts. In the centre and especially in the villages lying west of the Biyana road it is a firm and level loam, suitable for the growth of all the ordinary crops. In some of these, however, *e.g.*, Salabad, part of Naoli, Nangla-Purohit, etc., the water is bitter and in places too the soil shows traces of *kallar*. Seven-eighths of the wells are, however, sweet. Water is found at an average depth of 24 feet and except in the villages running west from Biyana under the hills towards Bhusawar—where the *bands* had fallen out of order, but are now being repaired—and is generally abundant. The average depth is 19 feet in masonry and 10 in *kacha* wells.

The owners in the Kather are generally Jats and Dhakars—who are first class, Gujars who are fair agriculturists, and Gaddis said to be the descendants of Punjabi Khattris converted to Islam in Aurangzeb's time—who are quarrelsome and slovenly and prefer to make a living by working in railway workshops, etc., than by tilling the soil. Though owing to the changes wrought by the Banganga some villages are still much depressed and rather over assessed, the tract as a whole is prosperous and steadily developing. Several villages on the east side are now irrigated from the Bareta band, and the irrigation will soon extend right up to the Gambhir. Some sugarcane and a good deal of maize is grown. Cotton is a favourite and successful crop and the *dofasli* area on the wells is considerable. In the present famine the tract showed hardly any signs of distress and the revenue was realised almost in full.

The Nahera with 45 estates is the tract lying south-west of Biyana, the

(2) Nahera.

south-eastern boundary being the range of hills which forms the western boundary of the Dang plateau, while the northern boundary is formed by the broad



irregular range running west from Biyana town to Ballabgarh in Bhusawar. Between the two runs the Gambhir in a north-easterly direction and the drainage from the hills on both sides has cut up the soft sandy soil with a network of *nalas* or ravines, which formed an excellent ambush or hiding place in the past to the lawless and predatory Gujars, and still enable several outlaws to defy the law. All the best cultivation, *viz.*, most of the *chahi*, the *sairaba*, and *khatili*, is to be found in the bed or on the banks of the Gambhir, and of its three large tributaries, the Talra and Gaddi Khor *nalas* from the north and the Raseri *nala* from the south. The intervening tracts are generally high sandy uplands often covered with dense jungle and known as *bihar*. In this some precarious cultivation is carried on in the *kharij*, and wells are occasionally to be found, but the water-supply away from the streams is poor and bad.

The only exceptions to this are the three fine villages of Kharcari, Bagrain and Khankhera under the hills on the west which have an excellent soil fertilised by the hill-drainage, numerous wells with good water, and grow large areas of betel-nut. These with the two large villages of Secundra (where opium is grown) and Shergarh close to Biyana are the most prosperous in the tract. The nature of the country is a bar to the construction of irrigation dams. There are only two—at Secundra and Bagrain—and these are of little use.

The water level varies enormously from the low lands to the uplands, but the average is 41 feet, while the average depth of water is 12 feet in *pakka* and 7 in *kacha* wells. The latter are very common all over the tract. The supply is now low owing to the drought, and in consequence a good deal of *zira* is sown in *chahi* lands in the *rabi*. Henna (*mehndi*) is also grown as a mixed crop in some villages near Biyana. The owners are chiefly Gujars, rather a wild and lawless lot, but amenable enough if treated with sympathy and consideration. They are fair cultivators, and as the area of pasture is very large make considerable profits from their large herds of cattle.

The Dang differs from the Nahera in the fact that it is a plateau among rocky hills, in which stone rather than sand predominates. These features (3) The Dang Upper and Lower. are most marked in the Upper Dang, a quadrilateral jutting out south and bounded on the west by Karaoli, on the south by Dholpur, and on the east by Agra into which it drains. It has 8 villages with enormous areas owned exclusively by Gujars. The surface is uneven and stony, and cultivation is limited to the low lands in the beds of the numerous *nalas* or ravines. Wells are very numerous and cost little as they are made of rough undressed stone without cement, but the water-supply is very poor and the area irrigated very small. In last year's drought many of the wells dried up completely and the population had to migrate in search of water. The evil has been aggravated by the neglect of the irrigation *bands* in the three villages of Kani, Ooncha, and Jaisra. Funds did not allow of their restoration being taken in hand this year, but the Executive Engineer hopes to undertake the work next cold weather. In ordinary years there is abundance of grazing, and the Gujars make large profits from the sale of *ghi*, wool, etc., the proceeds of which are generally set apart by their thrifty house-wives for payment of the State revenue.

The Lower Dang with 23 villages is the rocky plateau drained by the Kakund and extending from the Upper Dang to the Bareta *band* and the well-marked ridge of hills separating it from the Nahera. The soil is generally stony but in places sandy. The 11 villages on the western side benefit by the Bareta *band* which submerges much of the area in the *kharij*, but enables excellent *rabi* crops to be raised as the water dies up, and also raises the water-level in the wells. This is not however without its drawbacks, as *kacha* wells which formerly lasted 10 to 15 years now collapse after a year or two. Some of these villages have hitherto lost more than they have gained by the construction of the *band*, but the *nalas* and ravines are being filled up by the annual deposits, and if the water is run off in time to enable them to cultivate



a considerable portion of the area all will benefit in the long run. The 12 villages on the east and north remote from the influence of the *band* have large areas of *bihar* or uneven jungle and are much cut up by deep *nalas* running into the Kakund. These like the Upper Dang have suffered considerably from the drought as the wells have run dry and they are now much depressed. The average water-level is 3½ feet, the average depth of water 11 feet. Besides the Bareta dam there is only one dam in this tract, *viz.*, at Singhana on the extreme east through which the Khar *nadi* runs into Rupbas. This is under repair. There are other suitable sites, but they cannot be utilised without interfering with the supply of the Bareta work.

The Lower Dang too is owned almost exclusively by Gujars, a sturdy and manly lot, many of whom are in our native army. They have large herds of cattle, sheep, and goats, but in both the Dang and Nahera tigers and panthers often carry away the cattle, while other wild animals cause much injury to the crops.

The average annual rainfall at Biyana town since 1886 has been 26·83 inches, of which only 1·2 inches falls in the six cold weather months. The total is higher than for Oochain and Rupbas, and the head-quarters being surrounded by hills probably receives a heavier fall than the northern plains, I should be inclined to put the average for the whole tahsil at 25 inches. In two years of the fourteen the amount has exceeded 30 inches, while in four it has been less than 20. In 1896-97 and 1897-98 only 8·31 and 10·40 inches respectively were registered; but in the last three years the fall has been almost normal, though here as elsewhere the rainfall of the past two years has been very badly distributed as the September rains and the winter rains were practically *nil*.

Biyana town is 26 miles from the nearest railway station at Bharatpur *via* Oochain, with which it is connected by a good unmetalled fair-weather road. As the road crosses the valleys of the Ganbhir and Banganga communications are often interrupted for days at a time in the rains. The Dang and Nahera tracts are even more remote, and from the nature of the country are very badly served in the way of communications and are almost impassable for carts. Pack animals are therefore chiefly used for heavy traffic.

The chief agricultural tribes have been already noticed. Over half the area and 90 out of 168 estates are held by Gujars, Brahmins with 19 estates, Jats with 12, and Sinsinwar Jats with 8 estates come next in order. Hindu Rajputs and Mahomedan Gaddis hold 8 estates each, Minas 6, Dhakars 5, Sheikh Saiyads, etc., 5, Mallis and Kachis 5, and other tribes 2. One estate is still *kham*, and one, *viz.*, Fort Secundra which contains the ancient fort and buildings and has no cultivation, is State property. On the whole therefore the tahsil has a strong and fairly numerous agricultural population. Aided by the flourishing well and *sairaba* cultivation and the irrigation from the Bareta *band* it has held its own during the recent years of strain and difficulty.

## BHUSAWAR.

18. Bhusawar is one of the largest and after Gopalgarh, which has now been broken up, the highest revenue-paying tahsil in the State. The Jaipur State

(a) General description and soils. runs all along the west boundary. The tahsil comprises the *parganas* of (1) Bhusawar; (2) Weir formerly the appanage of the descendants of Raja Parfab Singh, younger brother of Suraj Mal, but resumed by the State in the last century; (3) the small *pargana* or *jagir* of Ballabgarh on the extreme south with 13 estates which was granted originally by Jaipur about 1721 A.D. to Chaudhri Ratti Ram, the Jat Sirdar of Ballabgarh, and was maintained to his descendants by the Bharatpur Rajas on condition of military service. It was temporarily taken over by the late Maharaja in 1880 in discharge of a debt. This *jagir* being for the present *khalsa* has been brought under assessment like other *khalsa* villages, but its assessment will be separately

shown to provide for the contingency of its being restored to the *Jagirdar*, Faujdar Debi Singh, Member of Council.

The total area is 234 square miles, of which 130 or 56 per cent. are under cultivation. The *khalsa* area is 220 square miles, of which 54 per cent. is under cultivation, 23 per cent. is unculturable (*viz.*, 12 per cent. or 27 square miles under hills, and 11 per cent. otherwise unculturable), 7 per cent. is recent fallow and 16 per cent. old *banjar* suitable for cultivation. Hence there is ample room for extending cultivation, but owing to various causes, which will subsequently appear, the increase since last settlement has been less than 3 per cent. Much of the culturable is dense but rather sandy jungle along the banks of the Banganga, overgrown with high reeds, etc., the breaking up of which is laborious and expensive. Special arrangements have now been made to lease out this for cultivation on favourable terms. Part of the culturable land represents holdings abandoned by the old owners owing to drought or pressure of assessment which has gradually fallen out of cultivation. For this arrangements have now been made either by reinstating the old owners, or if they refuse, by allotting it to other agriculturists. Finally some of the culturable especially under the hills on the south is light sand soil barely worth the expense of cultivation.

Of the cultivated area 33 per cent. is *chahi*, 1 per cent. *chahi-sairaba*, 1 per cent. *khatili*, 4 per cent. *sairaba*, 51 per cent. *barani* and 10 per cent. *bhur*. The *bhur* or inferior sandy soil is met with chiefly along the banks of the Banganga where sand has been deposited and also under the hills in the south of Bhusawar and Ballabgarh. In Weir there is very little even under the hills as these are composed of bare rocks.

Excepting the hilly portion on the south, all the rest lying north of a line from Bhusawar to Weir is a fairly level plain sloping gently to the north-east and crossed from west to east by the Banganga which has a course of 16 miles through this tahsil. The soil of this portion is generally a fairly good loam, wells are very numerous and well water is generally sweet though there are many villages close to the Banganga as well as at a distance from it, *e.g.*, Chonkarwara, Kallan, Salimpur, Jahanpur, Bijwari, Kherli, Gujar, Bewar, etc., where the water is very bitter, cotton in consequence is not sown at all on the wells; and even after a *rabi* crop is raised the land has often to be left fallow for a year to get rid of the injurious effects of the saline water.

The southern or hilly portion of the tahsil has a lighter soil except in Weir. Water is generally sweet but far from the surface and owing to the drought of recent years now very low. In the whole tahsil about 80 per cent. of the wells are sweet and about 20 per cent. bitter, brackish or oily—the last kind being the most injurious for agriculture.

The tahsil naturally falls into four main sub-divisions—(1) the northern or Trans-Banganga with 42 estates, (2) the small Ballabgarh *pargana* with 13 estates on the extreme south, and between these two (3) the Bhusawar *pargana* on the west and (4) the Weir *pargana* on the east.

The estates north of the Banganga have a good clean level soil in which *khariif barani* crops thrive and *pala* grows in profusion. Along the Banganga this changes into uneven sandy Bet land in which *pala* grows. Owing to the proximity of the stream the water level is near—26 feet for masonry and 23 in *kacha* wells—and the supply generally abundant—13 feet in masonry and 8 in *kacha* wells. The quality is, however, very variable and the prosperity of a village generally depends on whether its wells are sweet or bitter.

The Banganga here flows through fairly high beds and ordinarily inundates only 351 *bighas* in the two low-lying villages of Hatinjar and Nimatpur. As explained in paragraph 7 it is liable to burst through its banks in years of high flood, and in 1881 it broke out north at Khanpur on the extreme west and at Thilehahi close to Halevna and flooded all the country to

the north. The Pathena and Haleyna canals now take out from these points. The former is still under construction, but the latter has already irrigated a considerable area in Haleyna and the villages east of it on both sides of Bharatpur-Jaipur road which is used as a training work, and has also done much to improve the wells. There is no *band* in these northern villages, as there are no suitable sites, but they will benefit immensely by the extension of irrigation from the two canals mentioned. Owners are chiefly Jats, and as a rule men of more substance and energy than in the villages to the south.

The soil in the northern portion of the Bhusawar *pargana* is similar to that of the Trans-Banganga villages being

(2) Bhusawar *pargana*.

a fairly good level loam, but it deteriorates as we go south towards the hills and becomes a yellowish mixture of hill sand and clay. This even where to the eye it appears stiff and firm is very inferior in productive power, and *pala* will not grow in it. Around Bhusawar itself is found a species of reddish *bhur* very light in texture which is particularly suitable for the growth of mango and *mahua* trees.

The local custom is that any one is at liberty to plant a mango tree even on another man's land, but in the latter case half the produce goes to the owner of the land, half to the owner of the tree. The encouragement thus given has led to about 8,000 mango trees being planted in and around Bhusawar. Some of these are 100 years old, and in the village of Ataonda there is a single tree the fruit of which sells annually for Rs. 50 to 100. The more valuable trees have their own special names. These trees were till lately taxed by the State in various ways. Up to A. D. 1882 the State took one-third of the produce. In 1883, the trees were grouped into four classes according to the estimated quantity and quality of the produce and (1) where the soil was not previously assessed a tax of from 3 annas to 12 annas per tree was imposed, (2) where the land was already assessed the tax varied from 9 pias to four annas per tree. The average income to the State from trees in *khalsa* lands (excluding trees and gardens owned by the State) was for the 5 years ending in 1894-95 Rs. 1,903 per annum. In 1896 when a number of miscellaneous taxes and imposts were remitted this tax on the mango trees was also abolished. This was I think a mistake. The land under these trees was either not assessed at all, or assessed very lightly at last settlement on the understanding that the tax on the trees would be maintained. The mango trees are a valuable property as will appear from the fact that 2954 trees are now held in mortgage for a total amount of Rs. 7,552 or Rs. 2-8-0 per tree. The State is entitled to a share of this produce, as it is entitled to a share of the other produce of the land, and in similar circumstances the British Government taxes date trees in Mooltan and the Derajat. I therefore propose that in the new assessment the produce of these trees be taken into account as part of the assets of the estates to which they belong, and included in the assessment which will show separately the amount charged on the land and on the mango trees. The people will then be consulted as to whether the latter amount will be distributed over the land or maintained as a separate charge on the trees.

Wells are very numerous in this tract, but on the north between Bhusawar town and the Banganga where the soil is stiff the well water is very brackish in some 10 or 12 estates. The average water-level is 30 feet while the depth of water averages 5 feet in *kacha* and 10 in masonry wells. Towards the Banganga water is fairly plentiful, but on the south round Bhusawar there are general and well founded complaints of its inadequacy, and within the last two years great numbers of *kacha* wells have been sunk to make good the deficiency. Besides the deficient rains of late years another cause of the diminution of the supply is the damming of the *Chohi* torrent in Jaipur at Ghanna Garauli about 35 miles west of Bhusawar town. This stream, which in the rains used to bring down a great volume of water, enters the tahsil at Randbirgarh, flooded the low ground around Bhusawar, and after filling the *bands* of Garhi, Musapur, and Baroli, finally emptied itself into the great Ataripur *band*—4 miles long—on the north-east of the tract, whence the overflow in years of heavy rainfall run due east into

the Lalpur *band* north of Weir. Of recent years none of these *bands* has filled as the *Chohi* has never come down in heavy flood and hence the water-supply in the wells has been much reduced. An attempt has been made (see para. 7(e)) to supplement the deficiency by cutting a channel from the Banganga at Oohlu, 8 miles off to the Ataripur *band*, but this has never worked satisfactorily and a new channel from Mala Hera three miles further east is now being dug. Besides the *bands* mentioned there are several small *bands* in villages to the south of Bhusawar which hold up the rainfall from the hills. These have recently been repaired by the State, but have never yet filled properly, and the *sairaba* area in this *pargana* is at present small and of inferior quality. The owner in this tract are generally Jats, Brahmins, Dhakars and Gujars and are excellent cultivators. The Henna plant (*mehndi*) is grown in Bhusawar. The estates are very uneven as regards quality and prosperity. Those in which water is sweet and abundant are flourishing, while a large number owing to bitter wells, failure of water, etc., have broken down; and large areas have gone out of cultivation owing to the desertion of shareholders.

The Weir *pargana* on the east of the tahsil is a level plain on the north from Weir to the Banganga similar to the adjoining tract in Bhusawar. The portion lying south of Weir is very hilly and the four large estates of Jahaj, Hatori, Umrend and Tuhari are quite shut in by hills. The soil which is rather light towards the hills gets stiffer to the north, and as there is a rather sharp slope to the Banganga the local rainfall and the drainage from the hills runs off where not impounded by irrigation dams. Hence nearly every village in this tract has its *band* and some have more than one. The *bands* here as elsewhere had been much neglected during the reign of the late Maharaja to the great disadvantage of the land and the wells, but within the last three years the State has wisely laid out considerable sums in restoring them. The seasons have not, however, been favourable, and only a few, *viz.*, those of Moroda, Khohri, Raniwala (Weir town), Kotha, and Rajgarh have filled well. The wells, which are generally sweet, are very low in many villages.

The greatest irrigation work in this tract is the Lalpur *band* subsidiary to which are the Jiwad, Bansi, Lohasa, Ajrond *bands*, all lying between Weir town and the Banganga. These are fed partly by the overflow from the Ataripur *band* in Bhusawar; but since this source has failed they derive their supply chiefly from a channel from the Banganga through Hasaonda. This has worked admirably and the best *sairaba* cultivation in the tahsil is to be found on these *bands*. A very large area within these *bands* and also inundated by the Banganga is at present dense junglo, much of it being State Runds. All of this, except 1,500 *bighas* retained for State uses has now been leased out for cultivation, and if irrigation can be provided will be speedily brought under the plough. On the extreme south of the tract the drainage of the mass of broken hills around Jahaj with a catchment of 12 square miles of rocky ground runs west towards Balabgarh, and was formerly held up by a masonry dam in Jahaj constructed in 1881 at a cost of Rs. 24,000. This burst in the first heavy rains thereby causing the breach of the Ballabgarh *band* a little further west, and since then all this valuable drainage has passed away uselessly to Jaipur. The restoration of the Balabgarh *band* at the expense of the *jagir* has now been sanctioned.

As Bhusawar is famous for its mango groves so is Weir famous for its produce of the *ber* fruit or wild plum. The land under these gardens will in future as in the past be assessed as *barani* cultivation. *Pala* grows in profusion, and there is much culturable waste, but though the soil with careful handling would yield excellent *barani* crops, the agriculturists concentrate their industry chiefly on the wells and the *barani* is neglected.

This tract with a good soil, numerous wells and irrigation dams, was in former days—as the name implies—ono of the richest tracts in the State. It is now suffering from a severe but temporary depression which will be removed by a year or two of good rainfall sufficient to replenish the wells and fill the *bands*. The chief proprietors are in order of industry and prosperity, Dhakars Gujars and Gaddis.

The small Ballabgarh *pargana* on the extreme south is at present the most prosperous and highly cultivated portion of the tahsil. All the villages but one—

(4) Ballabgarh *pargana*.

Nithari—are in the *jagir* of Faujdar Debi Singh, member of the State Council, whose claim to recover possession from the State (see para. 4) is pending before the Political Agent. The zamindars are Jats and Minas, extremely industrious, and the *chahi* cultivation is very superior, water being sweet and the soil—a light reddish loam—very generous. Since the breaching of the Ballabgarh *band* the water level has sunk and the supply diminished—the average is now 39 feet to water level and 9 feet of water,—but the restoration of the *band* will improve matters. All the local drainage now runs off in deep *nalas* south-west into Jaipur. I may here note that the *Jagirdar* claimed full proprietary rights in all these estates, but after full enquiry it was found that the present village communities were in existence long before the grant of the *jagir*, the zamindars had freely exercised their right to sell and mortgage their lands to one another, and as the accepted tradition in the Bharatpur State is that a *Jagirdar* is entitled only to the revenue of the land, not to the land itself, I decided that the zamindars of all those estates, except Ballabgarh and shares in a few villages which are admitted to be the hereditary property of the *Jagirdar*—held the same proprietary rights as in *khalsa* villages.

The rainfall of Bhusawar is practically the same as that of Biyana.

(c) Rainfall.

There are two registering stations, at Bhusawar and Weir. The average rainfall for the former is 25·69 and for the latter 26·34 inches. The average cold weather fall is 1·4 inches, but in five years out of the last fourteen it has fallen below half an inch. This is the chief reason why gram and oilseeds are so sparingly grown even where the land is eminently suited for them. The rainfall of the last 5 years has not only been very much below the average, *viz.*, 19 inches against an average of 26, but has been very badly distributed, as in four out of the five years the September rains were less than an inch and the winter rains less than half an inch, and this, which has reacted on the wells and *bands* on which the agricultural prosperity of the tahsil mainly depends, is the chief cause of the present depression.

Bhusawar and Weir, the two chief towns in the tahsils are distant 16 and 14 miles respectively from the railway station of Nadbai, and Bhusawar is only

(d) Communications.

12 miles distant from the Kherli station in Alwar. The Banganga however comes in between, and its broad sandy bed, and the large deposits of sand on each side of it are a serious obstacle to heavy traffic even in the dry weather, while in the rainy season traffic is often interrupted for days. The Agra-Jaipur metalled road which passes through Haleyna and runs close to Bhusawar intersects the tahsil transversely. This was formerly an important mail route and was then well maintained, but since the opening of the Rajputana-Malwa Railway it has lost its importance and is now maintained in a tolerable state only as far as Haleyna. The old Moghul highway from Agra to Jaipur also passed through this tahsil, and its course can still be traced by the milestones, signposts, and the remains of the mosques and rest-houses. A fair unmetalled road runs from Bhusawar to Weir and on to Biyana.

The agricultural tribes are in order of importance Jats who hold 65 estates out of 149, *viz.*, Sinsinwar Jats 12 and other Jats 53, Gujars 28, Brahmins

(e) Agricultural population.

19½, Minas 11, Dhakars 6, Gaddis 7, Rajputs 2, other tribes 7½, and the State 3. Of these Jats, Dhakars, Minas, Bagri, Brahmins and Mallis, who hold 75 estates or half the area, are first class agriculturists. All the others may be placed in the second class. The tahsil as a whole is fortunate in its agricultural population. The zamindars have, however, been disheartened by the drought of the last five years, and especially by the scarcity of 1895-96 and 1896-97, in which the State by attempting to collect the full revenue broke down many villages and caused desertions of owners and tenants on a large scale. The great majority of these have now been induced to resettle and been given

possession of all or part of their ancestral lands, so that, given a few good seasons and a watchful and sympathetic revenue administration a speedy recovery may be anticipated.

19. Having described with perhaps needless prolixity the special features of each tahsil, I now return to the general description. The relative importance of the different classes of soil in each tahsil will appear from the following table, which shows the proportion of each class to the total cultivation (a) at last settlement, (b) in 1898-99, the year taken as the basis of the new assessment, and (c) for purpose of comparison in the year 1899-1900, which was however an abnormal one:—

Tahsil.	Detail.	CHAHÍ.				CHAHÍ-SAIRABA.				Khatli.	SAIRABA.				BARANI.			Grand total.
		Hal.	Sabika.	Temporary.	Total.	Hal.	Sabika.	Total.	Total chahi.		Hal.	Sabika.	Barahi.	Total.	Baral.	Bhur.	Total.	
Rupbas ...	1891-92 ...	21	9	...	30	...	...	...	30	...	...	25	...	25	44	1	45	100
	1898-99 ...	8	6	2	16	2	...	2	18	1	6	13	...	10	53	10	63	100
	1899-1900 ...	8	4	3	15	4	...	4	19	1	10	9	...	19	52	9	61	100
Oochain ...	1891-92 ...	30	7	...	37	...	...	...	37	...	...	18	...	18	45	...	45	100
	1898-99 ...	14	6	...	20	5	1	6	26	...	26	12	...	38	34	2	36	100
	1899-1900 ...	15	4	...	19	10	1	11	30	1	18	13	...	31	35	3	33	100
Biyana ...	1891-92 ...	33	6	...	39	...	...	...	39	...	...	14	...	14	47	...	47	100
	1898-99 ...	25	5	1	31	2	...	2	33	...	9	3	1	13	44	10	54	100
	1899-1900 ...	25	4	1	30	3	1	4	34	1	9	2	1	12	44	19	63	100
Bhusawar ...	1891-92 ...	34	9	...	43	...	...	...	43	...	3	1	...	4	53	...	53	100
	1898-99 ...	26	6	...	33	1	...	1	34	1	4	...	...	4	51	10	61	100
	1899-1900 ...	24	8	1	33	2	...	2	35	...	3	1	...	4	51	10	61	100

20. The classes of soil are the same as those described in para. 16 of Increase and decrease of the different last year's report with the addition of (1) classes. *chahi-sairaba hal*, i.e., land inundated from the Banganga or from *bands* as well as irrigated from wells, (2) *chahi-sairaba sabika*, i.e., land which has both sources of irrigation but received neither during the year. This latter class is of little practical use as in assessment it will be grouped with *chahi sabika*. The first class is however important in these tahsils and will be separately rated.

At last settlement the classification was not so elaborate as now, and does not show with any accuracy the details of the major classes—*chahi*, *sairaba* and *barani*. We must therefore be content to compare the totals under these major classes. Looked at in this light the figures show, (1) a considerable falling off not only in the proportion of *chahi* to total cultivation, but of the total *chahi* area as compared with last settlement in all four tahsils; (2) the *sairaba* area has actually increased in all tahsils but Biyana, where it is stationary; but if the areas of 1899-1900 be taken in Biyana, it shows a great increase and has increased relatively to the total cultivation in Biyana and Bhusawar; (3) the total *barani* area including *bhur* has increased enormously in Rupbas, fallen off slightly in Oochain—owing to the extension of *sairaba*—increased absolutely and relatively in Biyana and Bhusawar owing to the breaking up of new lands and the decrease in well irrigation.

21. The following table compares in detail the statistics of wells, *chahi* area, and area actually irrigated at last settlement and now:—

Tahsil.	Detail.	MASONRY WELLS.						KACHA WELLS.		DHERS DHIN KLIS		CHAHI AREA.		
		WORKING DURING YEAR.		WORKING IN ROTATION.		Total working.	Out of work.	Working in year.	In rotation.	Permanent.	Temporary.	Total.	Irrigated within year.	By dhinklis.
		Wells.	Laos.	Wells.	Laos.									
Rupbas ...	1891-92 ...	676	931	...	...	676	274	71	...	1	...	15,314	11,727	...
	1899-99 ...	641	814	145	220	780	240	264	...	2	25	14,550	9,642	27
	1899-1900 ...	681	858	129	203	809	230	407	...	2	82	16,318	12,622	60
Oochain	1891-92 ...	1,331	1,759	71	71	1,402	426	94	1	27	...	37,953	30,299	...
	1899-99 ...	1,174	1,555	200	390	1,440	420	62	14	13	41	31,954	23,923	52
	1899-1900 ...	1,352	1,790	200	244	1,561	299	291	7	14	423	33,783	28,616	407
Biyana	1891-92 ...	1,933	2,541	...	...	1,933	317	788	1	5	...	52,671	44,839	...
	1899-99 ...	1,776	2,540	100	128	1,893	301	614	47	24	24	46,880	30,001	50
	1899-1900 ...	1,856	2,948	93	106	1,954	299	725	57	25	465	49,866	41,434	450
Bhusawar	1891-92 ...	2,009	2,757	32	104	2,130	451	417	21	3	...	79,373	63,349	...
	1899-99 ...	1,945	2,743	294	422	2,239	400	537	47	242	49	66,263	50,242	373
	1899-1900 ...	...	...	...	...	...	...	...	...	...	...	...	...	...

These figures show (1) that the total number of masonry wells at work has increased since last settlement in all tahsils, but the number actually working in the year had fallen off in 1899-99, but increased considerably in 1899-1900 owing to the stimulus of the drought, and for the same reasons the number of wells out of work shows a steady decrease in all tahsils since last settlement, (2) the drought also gave a considerable stimulus to the sinking of *kacha* wells which have increased considerably in all tahsils but Biyana, and (3) temporary *dheres* and *dhenklis* increased enormously in 1899-1900, having been sunk wherever possible to save the *sairaba* and *khatili* crops, (4) as regards the number of working wells all tahsils but Biyana are now better off than at last settlement, but owing to the diminution of the well supply the efficiency or irrigating power of these wells has been much reduced; so that (5) the total *chahi* area and the area actually irrigated within the year show a great falling off in 1898-99 as compared with last settlement, and although to remedy this and cope with the drought the number of working wells increased considerably in 1899-1900, the areas did not come up to the standard of last settlement except in Rupbas.

We are safe however in drawing the conclusion that given normal rainfall and ordinary years, the well irrigation will exceed rather than fall short of the figures of last settlement. The great increase in *kacha* wells in recent years in Rupbas, Oochain and Bhusawar is due to their having been sunk wherever possible to eke out the irrigation from masonry wells. The wells working in rotation, *i. e.*, in alternate years or out of work are generally brackish or bitter wells which cannot be worked regularly without injuring the soil. Hence they are relatively most numerous in Oochain.



22. This point will be more readily understood from the following table  
 Classification of wells according to which classifies the wells of each tahsil  
 quality. according to the quality of the water and  
 shows the area irrigated in 1898-99 from each class :—

Class of wells.	Details.	RUPBAS.				OOCHAIN.				BIYANA.				BHUSAWAR.			
		WELLS.		CHANI.		WELLS.		CHANI.		WELLS.		CHANI.		WELLS.		CHANI.	
		Working.	Not working.	Hal.	Sabka.	Working.	Not working.	Hal.	Sabka.	Working.	Not working.	Hal.	Sabka.	Working.	Not working.	Hal.	Sabka.
Sweet	Masonry ...	490	112	6,183	3,618	600	137	10,126	4,054	1,511	90	28,241	5,635	1,411	220	32,940	11,713
	Kacha ...	207	...	1,169	...	69	14	474	253	500	41	4,877	1,269	403	45	4,313	1,736
	Total ...	693	112	7,341	3,618	669	151	10,600	5,209	2,010	131	33,118	6,903	1,804	265	37,253	13,449
Oily	Masonry ...	9	1	209	12	8	2	131	60	47	4	1,012	271	102	22	2,253	791
	Kacha ...	...	...	...	...	...	...	...	...	16	1	130	30	5	...	70	9
	Total ...	9	1	209	12	8	2	131	60	63	5	1,142	301	107	22	2,323	800
Hard	Masonry ...	...	...	...	...	...	...	...	...	...	...	...	...	129	3	3,569	630
	Kacha ...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	63	20
	Total ...	...	...	...	...	...	...	...	...	...	...	...	...	134	3	3,622	650
Brackish	Masonry ...	71	7	1,214	612	252	45	5,420	1,439	110	2	2,510	232	81	15	1,705	313
	Kacha ...	3	...	3	...	12	...	193	...	14	...	144	25	2	...	6	...
	Total ...	74	7	1,247	612	264	45	5,621	1,439	124	2	2,654	257	83	15	1,711	313
Bitter	Masonry ...	75	25	817	575	314	82	7,408	1,318	103	10	1,997	363	223	31	5,090	713
	Kacha ...	27	...	128	...	11	...	168	...	14	2	190	55	31	2	211	59
	Total ...	102	25	945	575	325	82	7,576	1,318	117	12	2,087	418	254	33	5,301	772
Total	Masonry ...	611	145	8,453	4,817	1,174	266	23,091	7,771	1,777	106	33,660	6,601	1,945	294	45,547	14,189
	Kacha ...	237	...	1,280	...	92	11	837	256	613	47	5,341	1,378	537	47	4,605	1,633
	Dhenklis ...	27	...	27	...	54	...	52	...	45	...	50	...	290	...	365	8
GRAND TOTAL ...		905	145	9,760	4,817	1,320	280	23,980	8,026	2,435	153	39,051	7,979	2,772	341	50,407	16,020

Put in the form of percentages the result is—

Detail.	Rupbas.	Ochain.	Biyana.	Bhusawar.
Sweet ...	80	55	87	76
Oily ...	1	1	3	4
Brackish ...	8	19	5	9
Bitter ...	11	25	5	11



which shows that in Oochain nearly half the wells are oily, brackish, or bitter, and irrigation from them unless supplemented by rain is injurious to the land in the long run, while in the other tahsils the proportion of such wells is one-fourth in Bhusawar, one-fifth in Rupbas and one-eighth in Biyana.

The large area of *chahi-sabika* shown opposite each class of well is due to several causes, of which the most obvious are (1) the insufficiency of the well water, (2) the necessity of growing a dry crop after an irrigated one on bitter wells so as to arrest deterioration, (3) the want of sufficient cattle, etc., to work the wells fully.

Double cropping and average area irrigated per *lao*. 23. Double cropping is generally confined to sweet wells on which if the water-supply is sufficient maize, cotton, and *bajra* in the *kharif* are followed by wheat, barley, or *zira* in the *rabi*.

The area so double cropped within the year of attestation was—

Rupbas	2,887	bighas or 29 per cent.
Oochain	4,254	„ 18 „
Biyana	14,070	„ 36 „
Bhusawar	10,157	„ 20 „

The average area irrigated per *lao* or well-rope works out as follows for the different classes of wells :—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.
Masonry wells ... ..	11	15	15	17
Kacha ... ..	4½	9	9	9

The average is fairly uniform except in Rupbas, where it has been much reduced by the failure of the wells in the Wal tract. A *dhenkli* on the average irrigates 1 to 1½ *bigha*.

Kinds of wells in use.

24. The classification of wells according to method of construction is as follows :—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.
Masonry ... ..	702	1,241	643	...
Pathraura or loose stone ... ..	329	199	1,239	...
Kacha pakka ... ..	...	...	283	...
Kacha ... ..	264	106	377	...
Total ... ..	1,295	1,546	2,542	...

Masonry wells, *i.e.*, in which a masonry cylinder is first constructed and sunk from above or which are built up from below, are most common in the open plains and in the area flooded by the Banganga. They are more expensive than the other forms, but last longer and usually have a better water-supply as they tap the spring level.

The *pathraura* wells made of loose stone generally undressed and without mortar or cement, are found in the stony lands under the hills, are very common in the Wal of Rupbas and almost universal in the Dang of Biyana. They cost comparatively little, but dry up quickly in a drought as they often depend for their supply on the percolation of the surface drainage and do not tap the spring-level. *Kacha-pakka* wells are most common in the Nahera of Biyana where the water level is very deep, and to ensure greater stability from 10 to 20 feet at the mouth of the well is lined with masonry.

*Kacha* wells are most common in Biyana and Bhusawar. They generally require a firm subsoil. Their increase in recent years is due to the necessity of supplementing the failing supply in masonry wells.

Takavi advances.

25. The following table shows the amount of *takavi* advanced by the State for wells and other purposes and the number of wells constructed :—

Tahsil,	ADVANCED BEFORE 1890.			ADVANCED SINCE 1890.						NUMBER OF WELLS.		
	Advanced.	Realised.	Balance.	For bullocks and seed.			For wells.			Newly made.	Repaired.	Under construction.
				Advanced.	Realised.	Balance.	Advanced.	Realised.	Balance.			
Rupbas... ..	4,432	3,571	551	16,700	17,195	1,615	7,709	6,031	1,678	37	7	...
Oochain ... ..	6,931	4,627	2,004	35,458	31,827	631	11,740	11,019	721	29	9	...
Biyana ... ..	63,701	55,025	10,766	25,602	22,727	2,875	10,640	6,915	2,334	53	26	8
Bhusawar ... ..	6,067	6,550	417	13,391	13,115	279	15,245	14,321	924	52	23	7
Total ... ..	81,011	70,273	13,738	83,154	67,654	5,300	45,313	30,686	5,657	151	65	10

The advances in these tahsils since 1890 have been far more liberal than in the Central or Northern tahsils. Over Rs. 90,000 have been advanced in the four tahsils for seed and bullocks, and over Rs. 45,000 for construction or repair of wells with which no less than 151 new wells have been sunk, 65 have been repaired, and 10 are under construction.

In para. 13 of last year's report I indicated the lines on which the *takavi* system should be worked. The necessity of having a liberal but well-supervised system in these tahsils is all the greater, as in all tahsils but Rupbas half or more of the revenue demand is paid by the wells.

26. The leading feature of natural and artificial irrigation from Banganga and Gambhir floods and irrigation dams have been described in the remarks on *Sairaba cultivation and bands*. During the reign of Maharaja Balwant Singh, i.e., between 1825 and 1853, nearly all the existing irrigation works in this as in the other parts of the State were carried out. These were efficiently worked and added to by Lieut. Home, R. E., between 1862 and 1867 during the minority of the late Maharaja. On his accession this important branch of the administration was neglected, and works in progress such as the Bareta *band* were abruptly stopped. The result was that the *bands* fell into ruin or disrepair, thus causing a steady deterioration in *sairaba* cultivation and in agriculture generally during his reign. On the reorganisation of the State administration under the Political Agent in 1895 the improvement of the irrigation system was at once taken in hand, and since then it has been pursued with unremitting energy and zeal by the Executive Engineer Mr. J. A. Devenish with the best results to the people and the State. As a single instance of the many direct results achieved I need only refer to what has been done to control the Banganga floods (para. 7) which from being the curse of these tahsils have now become the mainstay of their agricultural prosperity; and as an example of the indirect benefits I may quote the fact that in the severe scarcity of 1896-1897 and the recent famine the State was able to entrust the

entire organisation of the famine labour to the Public Works Department which was in a position to profitably employ it for the most part on the construction or repair of the irrigation dams. A detailed list of the principal works in these tahsils will be separately printed. When those now in hand are completed, much will have been done towards the improvement and security of agriculture in the tract.

27. The main facts as to the rainfall have been stated under each tahsil

Rainfall and barani cultivation.

and detailed figures are given in Appendix A. The average for the tract may be taken as 25 inches in the year, which if well distributed is sufficient to secure both crops. Unfortunately we are passing through a cycle of years, beginning with 1895-96, in which the rainfall has been not only very deficient—the average fall for the last 5 years being only 19 inches—but very badly distributed. In three years out of the five both the September and the winter rains have practically failed, thereby much reducing the outturn of the autumn crop and causing a general failure of the non-irrigated spring crops.

28. The tract as a whole though not in direct contact with the railway

Communications, trees, climate, etc.

is not remote or isolated, the headquarters of the various tahsils being within from 11 to 25 miles from a railway station. For internal communications all tahsils but Oochain are dependent on fair-weather roads and are liable to considerable interruption of traffic in the rains when the Banganga and Gambhir are in flood. The portion of the tract lying north of Banganga is generally bare of trees; south of the river vegetation is more luxuriant. The plains of Bhusawar and Biyana abound in fruit-trees, *viz.*, the mango, the *mahua* from the flower of which liquor is distilled, the *ber* or wild plum. The hills in the Dang and the low broken ground along the banks of the streams and *nalas* in the Nahera are covered with a dense growth of brushwood and provide abundant grazing for sheep and goats. Betel-leaf is successfully cultivated in some villages of Bhusawar and Biyana.

The climate is generally better than that of the northern or central tahsils, as water-logging is not so common, owing to the lighter texture of the soil, and the drinking water is generally excellent. Some of the villages on the east of Oochain which have a low-lying alluvial clay soil and are annually inundated are however very subject to malarial fever.

## CHAPTER II.

### FISCAL HISTORY.

29. The rise of the Bharatpur State has been described in Chapter II of

Early history of Biyana.

my previous reports. The early history of this tract centres round Biyana, which nature and art combined to form into one of the most famous strongholds in India even in the days of Hindu dominion. During the invasion of Mahmud of Ghazni in the 11th century a Jadu Rajput Bijey Pal ruled in Biyana, and his conduct in endeavouring to forcibly secure a Mohamedan girl is said to have led to Biyana being stormed and captured in 1031 A.-D., by Mahsud Salar nephew of the Sultan. Bijey Pal was killed in battle, but the fort is said to have been soon after recovered by the Rajputs. At all events it was again stormed successfully by the famous Abu Bakar Kandhari in A. D. 1047. Abu Bakar was killed fighting, and his tomb is still pointed out close to Biyana. Thenceforward Biyana seems to have been held by whatever dynasty ruled in Delhi. At the end of the fifteenth century the local Governor rebelled against Secunder Lodi, who after capturing Biyana founded a new city at Secundra, a few miles to the south, the ruins of which are still to be seen. This city was

like Biyana at the foot of the hills and covered the entrance to the mighty fort or series of forts which crown the crests and have even now a circumference of 7 miles. Successive conquerors, Hindu and Musalman, had devoted their energies to the strengthening of this splendid natural stronghold and it is now a curious medley of Hindu and Mahomedan relics which would well repay antiquarian research.

Babar writing in 1526 describes Biyana as one of the most famous forts in India. The combined Rajput forces advancing northwards to encounter the Moghul invaders expelled the garrison left by Babar and took possession of the fort, and it was 20 miles to the north-east at Khanwa in Rupbas that Babar put a seal to his conquests and hopelessly shattered the last attempt of the great Rajput confederacy to recover the empire of Hindustan by a complete victory over the Rajput forces under Raja Sanga of Meywar. This victory is known commonly as that of Fatehpur Sikri, which place is however about 10 miles distant from the battle-field. His son Humayun wrested the fort of Biyana from the Lodis in 1535, and from that date to the rise of the Jat power it was held by the Moghuls.

30. Owing to its vicinity to Fatehpur Sikri and Agra which are only 10 and 30 miles distant from Rupbas, this tract had a close connection with the Moghul Emperors. The fine palace and tank at Rupbas were constructed in Akbar's time by Mian Rup, a Rajput convert to Islam and a favourite of the Emperor who used frequently to visit Rupbas on hunting expeditions. The finest specimens of Moghul architecture at Agra, Delhi, and Fatehpur Sikri were built of the famous white and red sandstone of Rupbas.

31. In the Ain-i-Akbari the tract is shown as belonging to the Agra Land revenue valuation under the Sirkar or district of the Agra Subah or Moghuls. Province. In the following table I quote the *mahals* or subdivisions mentioned in the Ain-i-Akbari which can be identified as now included in the Bharatpur State, with the land revenue then levied from them.

Pargana or mahal.				Land revenue in rupees.	Tahsils in which now included.
				Rs.	
Biyana	...	...	...	1,77,753	Biyana.
Bhusawar	...	...	...	1,37,636	Bhusawar.
Khanwa	...	...	...	73,056	Part of Rupbas.
Kumher	...	...	...	18,650	Part of Kumher.
Heylak	...	...	...	69,717	Part of Kumher.
Pahari	...	...	...	30,725	Pahari.
Kama	...	...	...	12,613	Kama.
Muicira	...	...	...	15,453	Kama.
Ol (part)	...	...	...	1,37,738	Kumher and Bharatpur.

Unfortunately owing to the difficulty of identifying the old with the present names the comparison cannot be made complete. So much however is evident that the three old *parganas* of Biyana, Bhusawar and Khanwa, which now go to make up part of the four southern tahsils then paid a land revenue of Rs. 3,88,445, or more than half of what the whole tract pays at present. I have shown in Chapter II, of this year's report on Alwar that in Akbar's time the prices of agricultural produce were only from one-fourth to one-sixth of what they are now so that even assuming that the assessment then was only half of what it is at present, the proportion of the produce then taken, *i.e.*, the pitch of the assessment, was very much higher than at present. This is also evident from the fact that Akbar's standard of assessment was one-third of the estimated

produce—and his estimates were pitched very high as shown in my Alwar report—converted into cash at the current prices of the year, or the average prices of the previous ten years.

32. The conquest of this tract by the Jats between 1720 and 1750 A. D. has

been related in previous reports. The *paragana* of Weir in Bhusawar was granted as a separate *Jagir* by Badan Singh to his second son Partab Singh who built the present fort and palace, beautified the place with tanks and gardens, and enjoyed the title of Raja. Maharaja Jawahir Singh suspected him of intriguing with the Moghuls and aiming at setting up a separate State. He therefore captured Weir and forfeited the *Jagir* leaving Partab Singh only 12 villages for his maintenance. These his descendants held for some generations with the title of Raja. Maharaja Balwant Singh reduced the grant to the two villages of Bárha and Salempur, and on the death of Daryao Singh, the late Maharaja resumed even these and gave a cash allowance instead to the present head of the family Raja Samundar Singh who is pursuing his studies in the Mayo College.

In the same way Thakur At Ram younger brother of Churaman and the ancestor through his adopted son, Sardul Singh, of the Pathana Thakurs received a grant of Haleyna and about 200 villages in the vicinity. He built a fort at Haleyna which still exists. When Jawahir Singh attacked Weir the Haleyna chief Sawai Ram, who was in charge of the operations was suspected of intriguing with Raja Partab Singh. His large *Jagir* was at once confiscated, only a small portion being left for his maintenance. Even this has been gradually resumed and the descendants of At Ram now hold only a small area in Haleyna as sub-proprietors.

33. These two cases are typical of the manner in which the Bharatpur

chiefs aggrandised themselves by absorbing the possessions of their feudatory *Jagirdars*. While the State was still growing under Badan Singh and Suraj Mal and these chiefs had need of the strong arm of their Jat kinsman, the services of the latter were rewarded by liberal grants of *jagirs* and *mafs* from the conquered territory. Thus grants on a large scale were given to the 16 sons of Badan Singh, known as the Thakurs of the Solah Kothris, who became the founders of what are still the most prominent families in the State. When the boundaries of the State ceased to expand the Maharajas—from Jawahir Singh downwards—began to cast a jealous eye on these large grants and set themselves to resume or reduce them by various pretexts. In A. D. 1808, even after Weir and Haleyna had been resumed, no less than 43 estates (excluding Ballabgarh) in the present Bhusawar tahsil, embracing over one-third of the area, were still held in *masi* or *jagir*. At the settlement of 1855–57 the number had been reduced to 16, while subsequent resumptions have now reduced it to seven estates covering only 5 per cent. of the area. The temporary resumption of the Ballabgarh *jagir* has been referred to in paragraph 18. Even “the brothers near the throne” *viz.*, the Thakurs of the Solah Kothris have suffered, the shares of those who died without having male heirs of the body having been resumed under the *Nath* rule. Large Inam grants were held also by horsemen on condition of service to the State when required. These horsemen used to band themselves together and commit organised raids and dacoities in Agra and the neighbouring States. Maharaja Balwant Singh struck at the root of the evil by enrolling the horsemen in a Cavalry regiment, resuming their lands and granting cash salaries instead. These were looked on as hereditary for some generations but most of them have now disappeared. Another method of reducing the area of Inam was by the resumption of the Inams of those who deserted in the famine of 1877–78, or failed to pay the miscellaneous cesses which the State levies on such lands.

The result of these measures is that the total extent of alienations—excluding *Chauth* estates—in Bharatpur is only one-eleventh of the total area and one-ninth of the cultivated area—probably lower than in any State in Rajputana.

The *Nath* rule has now been abolished and as long as there are any descendants of the original grantee, resumptions cannot be effected. So that any further considerable diminution of the *jagir* and *mafi* grants, except those which are purely temporary or personal, is improbable.

34. The leading agricultural tribes have already been noticed in the remarks under each tahsil but the following table gives fuller details of the number of estates, total and cultivated area held by each.

Tribo.	RUPBAS.			OOCHAIN.			BIYANA.			BHUSAWAR.			TOTAL.		
	No. of estates.	AREA.		No. of estates.	AREA.		No. of estates.	AREA.		No. of estates.	AREA.		No. of estates.	AREA.	
		Total.	Cultivated.		Total.	Cultivated.		Total.	Cultivated.		Total.	Cultivated.		Total.	Cultivated.
Jatwar	1½	3,529	1,961	11½	20,180	14,770	8	20,460	12,624	12	20,621	13,639	33½	64,809	43,194
O Jats	10	42,072	19,398	30½	71,123	49,752	11½	24,336	12,074	53	1,32,661	73,624	114½	2,70,104	1,84,749
Thakurs	...	...	...	½	1,073	973	5	10,010	6,607	6	11,100	7,912	11½	22,783	15,592
Minas	...	...	...	½	667	535	6	10,027	5,703	11	25,069	10,703	17½	35,762	23,001
Brahmins	16½	29,103	12,544	13½	47,175	20,610	18	34,239	17,376	19½	46,650	32,445	66½	15,167	86,083
Lodhas	6	8,333	5,013	3½	5,024	4,343	...	...	...	...	...	...	9½	14,257	9,996
Gujars	8	13,245	7,105	18½	44,019	24,414	90	3,02,656	72,645	29	66,143	33,435	144½	4,49,663	1,37,789
Rajputs	16½	57,395	27,100	0	24,666	13,515	8	56,707	15,029	2	6,921	3,604	32½	1,45,571	59,329
Malis and Kachis.	3	4,506	2,462	1½	703	415	5	9,590	4,055	2	3,321	2,570	11½	19,276	10,102
Other Hindus	1	2,175	1,493	2½	3,010	2,392	2	5,082	2,723	8½	10,986	8,133	6½	21,262	14,743
Gaddis	1	1,016	495	½	1,664	647	8	12,016	7,464	7	9,635	5,643	16½	24,333	14,249
Bayads, Sheikhhs, &c.,	5½	11,575	7,290	1	3,076	3,124	4	5,301	1,714	2	6,767	6,609	12½	29,019	18,743
Other Musalmans.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kham	½	1,613	1,030	4	5,465	2,072	1½	7,301	1,909	...	...	...	5½	14,379	5,911
State property	1	7,417	...	2	2,733	...	1	2,731	...	3	10,030	9,027	7	22,911	3,027
Total	76	1,82,341	60,592	60	2,32,929	1,43,506	168	5,01,133	1,61,600	149	3,74,003	2,07,044	491	12,90,476	5,99,410

The statistics include revenue-free as well as *khalsa* villages. Details of each class are given in para. 14, and revenue-free grants will be further considered in chapter IX.

Of the 490 estates in the tract 33½ or about one-fifteenth are held by Sinsinwar Jats relations of the ruling family. All of these were originally and a few are still held in *Inam* on condition of Military service. Other Jats hold 114 villages or about two-ninths of the whole. They are scattered over all tahsils but are strongest in Oochain and Bhusawar. The Jats are rare south of the Banganga. In Rupbas they have ousted the Panwar Rajputs from many villages. Brahmins hold 67 villages or about 14 per cent. of the total number and are fairly well represented in all tahsils. The Bagri Brahmins are often spoken of as a separate caste, and are superior in industry to the other Brahmins. They hold 20 villages.

Gujars are by far the strongest tribe, holding 144½ villages or 30 per cent. They are scattered over all tahsils but are found chiefly in the hilly portions where

facilities for pasturing cattle are abundant, and are most numerous in Biyana where they own more than half the estates and practically have a monopoly of the Nahera and Dang tracts.

Rajputs are fairly numerous in Rupbas all of which they once held, but hold only scattered villages in the other tahsils. In the whole tract they own 32 estates or one-fifteenth. Minas hold 17 villages in Biyana and Bhusawar generally along the borders of Jaipur which is their chief *habitat*. Lodhas hold 10 villages in Rupbas and Oochain, but here as elsewhere are a feeble, spiritless race. Malis and Kachis who represent the market-gardening or *petite culture* agriculturists hold about 11 villages, and other Hindus hold nine of which three belong to Mahajans. The only Hindu tribe not mentioned in previous reports are the Dhakars. These claim to be of Rajput descent, and are probably one of the many mixed races formed by the intermarriage of Rajputs with inferior castes—probably in this case with the Jats. They own 11½ villages in Oochain, Biyana, and Bhusawar, and are the most industrious and prosperous agriculturists in the tract.

Mohamedans own only 29 estates or 6 per cent. of the whole. The most important section are the Gaddis who own 16½ villages chiefly in Biyana and in the vicinity of Weir. Their origin is doubtful. According to some accounts they are Rajputs forcibly converted to Islam under the Lodi or Moghul dynasty, while they themselves have a tradition that they are the descendants of Kshatryas or *Khatris* from Maghiana in the Punjab. They certainly have the Punjabi rather than the Rajput cast of features. They are poor agriculturists but take readily to service, especially in the railway.

The agricultural capacity of all these tribes has been described in previous reports and they may be classed as follows—

*Good cultivators.*—Other Jats, Minas, Dhakars, Mallis and Kachis.

*Fair*—Jats Sinsinwar Gujars, Brahmans.

*Bad*—Rajputs, Lodhas, Mohammedan and all others.

Thus about one-third of the estates are held by good, one-half by fair, and one-sixth by bad agriculturists. On the whole therefore the tract is fortunate enough in its agricultural population.

35. The origin and growth of rights in the soil; and the manner in which Rights of the agriculturists in the they have now been defined have been land. sufficiently discussed in previous reports. A remarkable feature in these tahsils and the Bharatpur State generally is the tenacity and success with which the zamindars of *mafi* and *jagir* estates have resisted the attempts of the *jagirdars* and *masfidars* to appropriate the rights in the soil. The Russian serf before emancipation said to his lord “*Mui vashe, no zemliya nasha*” *i.e.*, “we belong to you, but the land belongs to us,” and the Bharatpur peasant will similarly reply to his master, whether the State itself or a *Jagirdar* “*Bhej tumhara, dharti hamara*” *i.e.* “the revenue is yours, the land is ours.” One of the most satisfactory features of the present Settlement is that the proprietary rights of the Zamindars have now been once for all formally recognised and put on record.

36. The droughts and famines which have affected this tract are the same as those mentioned in previous reports.

Drought and famine.

To the peasants of every country these famines mark the milestones on the road of history; and just as the Irish peasant calculates from the “*Bad Times*” *i.e.*, the famines of 1846-47 and of 1877-78, so his Indian brother reckons events from “*Satara*” or “*Chauntis*” *i.e.*, the famines of 1917 (A.D. 1860-61) or of 1934 (1877-78). The latter famine and the severe scarcities almost amounting to famine of 1896-97 and 1899-1900 will be referred to in connection with the history of the working of the various assessments which will now be examined.

37. The circumstances which led to the first Summary Settlement in 1855, carried out in the northern tahsils by Sir

Former assessments.

H. Lawrence, Agent to the Governor General, and in the rest of the State by his Assistant, Captain Nixon, have been

described in Chapter II of previous reports. The various re-assessments up to date have been:—

1. Summary Settlement ... 1855-57.
2. Three years' Settlement ... 1858-61.
3. Six years' Settlement ... 1862-70.
4. Addition of 10 per cent. to (3) ... 1871-73.
5. The fifteen years' Settlement up to date. [This Settlement was found oppressive in the other tahsils and the demand was revised on the expiry of 10 years but here it was maintained.]
6. Ten years' Settlement ... 1874-90.

Of these Settlements or rather re-assessments—for no record of rights was framed prior to the present operations—the first two were carried out on broad and just lines by Captain Nixon under the instructions of Sir H. Lawrence, and all the rest were the work of inexperienced and inefficient State officials whose main idea was to raise the State demand wherever possible, and to show improved financial results on paper quite regardless of the fact that the revenue collected was very much below that demanded.

38. In the following table I have endeavoured to show as clearly as the limited materials at my disposal will allow, the total demand and arrear of these tahsils at each re-assessment, and as Ballabgarh has been included in Bhusawar only since 1880 I have shown it separately.

Progressive increase of the demand by re-assessment.

No.	Settlement.	RUPBAS.		OOCHAIN.		BIYANA.		BHUSAWAR.		TOTAL.		BALLABGARH.	
		Demand.	Arrears.	Demand.	Arrears.	Demand.	Arrears.	Demand.	Arrears.	Demand.	Arrears.	Demand.	Arrears.
	1854-55 ...	Rs. ....	Rs. 1,02,791	Rs. ....	Rs. 46,019	Rs. 1,61,412	Rs. 1,47,896	Rs. ....	Rs. 2,02,306	Rs. ....	Rs. ....	Rs. ....	Rs. ....
1	Summary ...	99,099		1,15,084		1,11,466		1,50,851		5,10,400		29,078	
2	Three years ...	1,16,200	14,399	1,50,490	6,299	1,43,363		1,71,359		5,51,412	50,145		
3	Six years ...	1,18,299		1,26,160		1,62,592	22,467	1,80,045	7,060	5,87,716		21,850	
4	Do. revised ...	1,29,070		1,35,039		1,79,839		2,00,207		6,45,475			
5	Ten years ...	1,40,536		1,69,809		1,90,682		2,20,792		7,21,919	8,32,758		
	In 1882 ...	1,42,879	4,61,666	1,74,403	1,68,088	1,87,639	85,697		96,405			32,153	30,733
6	15 years 1880 ...	1,00,513		1,72,373		2,06,947		2,36,271		7,16,104		34,767	7,541
	1892 ...	1,05,708	1,30,623	1,72,373	1,38,794	2,06,947	60,650	2,36,271	1,52,854	7,21,357	4,69,021		38,273
7	1898-99 ...	1,05,855		1,72,705		2,06,972		2,38,480		7,21,012			
	Total ...		5,92,291		3,27,492		1,52,047		2,49,359		13,21,779		

Of the arrears prior to the Summary Settlement, the total amount shown above was remitted in 1884 in Rupbas, Oochain and Biyana, while the amount unrealised up to that date Rs. 1,61,897 was remitted in Bhusawar. Hence the total arrears as now shown date only from the Summary Settlement of 1855. The pitch of these assessments and their working for the State as a whole was discussed in the introduction to my report on the northern tahsils.

39. Prior to the Summary Settlement the State in theory took one-third of the produce—a relic of Akbar's land-revenue system—which was levied either by actual division of the crop (*balai*), or more frequently taken by appraisement of the yield of the standing crop (*kankut*) which was converted into a cash demand at the current rates. A further development of this led to the *theka* or contract system by which the Zamindars or a middleman (*thekadar*) contracted to pay a fixed sum for a year or a term of years. In practice however the State took all it could exact from the people, and much of the residue was swallowed up by rapacious and corrupt officials.



40. To show that this is no fancy picture I quote from Captain Nixon's Condition of the people at time of report (No. 77, dated 6th March 1858, to summary Settlement. the Agent to the Governor General) on the re-assessment of the *pargana* of Bhusawar and Akhegarh.

"On making the Summary Settlement I found the inhabitants of these two *parganas* in the most wretched state of destitution. I visited numbers of villages and collected the household property of the inhabitants to test actually what they were possessed of. Nothing can describe what their poverty then was and I expressed my conviction that they were actually gaunt with hunger. On other occasions they pleaded that they were starving and that the tahsil officials had taken both heaps of grain (the cultivator's share as well as the State's) alluding to the *kharif* and *rabi* crops or as they expressed it "donon kurrar le liya", and this was actually admitted by the tahsil officials themselves. I have only troubled you with these remarks with a view of pointing out that the discrepancy between male and female children is not always as we suppose the result of infanticide, for it is a well-known fact that the people to relieve themselves from temporary pressure give their female children in marriage to those whom they consider their inferiors obtaining a sum of money for so doing. In my general report\* No. 98, dated 31st May 1857 sending up the Summary Settlement of this territory, I fully remarked on the causes that induced me to reduce the taxation. The Summary Settlement was instituted by Sir H. Lawrence and has been a blessing of no ordinary magnitude to the population whom it has relieved from much oppression and injustice."

\* Not available.

on the causes that induced me to reduce the taxation. The Summary Settlement was instituted by Sir H. Lawrence and has been a blessing of no ordinary magnitude to the population whom it has relieved from much oppression and injustice."

41. Unfortunately Captain Nixon's report on the Summary Settlement

Reduction of the demand at Summary cannot be traced, but from Sir H. Settlement. Lawrence's reference to it the reduction must have been over 15 per cent. on the old demand; for he writes.

"His (Captain Nixon's) reductions were even greater than mine (which had been 14.75 per cent.) and in Bhusawar especially, where the Political Agent had been deceived into believing that the reports of the distress were fictitious and got up by the tahsildar, his reductions exceeded by one-tenth the average of the last ten years' jama."

The reductions for the whole State were over three and-a-half lakhs on the previous demand, and in these tahsils were probably one and-a-half lakhs.

42. The Summary settlement was intended to be merely a temporary

Preparation for a regular settlement. measure pending a regular settlement of the State for which under the orders of Sir H. Lawrence a field-to-field survey and a complete record of rights were being prepared by Captain Nixon with the aid of Lieutenant Hamilton, R. E., of the Survey Department. The report for the regular settlement of the first two *parganas* Bhusawar and Akhegarh was submitted in March 1858 as already stated.

43. In that report Captain Nixon discussed several important questions as to

Discussion of the rights of the Zamindars by Captain Nixon. the rights of the Zamindars and the share of the assets to be taken by the State, and as in previous reports I had not access to that correspondence I now quote a few of the most salient points. In para. 3 he writes.

"In accordance with the view of the late Sir H. Lawrence I have allowed the *biswadars* of Bharatpur in the new settlement a margin of profit varying from 30 to 50 per cent. Under the late Rajah they only received a *Hakk Makkaddami* of from 2 to 5 per cent. as their profits, and under the summary settlement which I carried out in 1855 this *Hakk* was allowed. Hitherto in Bharatpur the Rajas have exercised the functions of proprietors or zamindars; that is they have enjoyed all the powers of the proprietor of the soil, have given whole villages in *jagir*, have measured out portions to their servants, have cut down trees and in every way exercised signorial and proprietary rights. But henceforth by the introduction of a regular settlement these rights will be nullified, inasmuch as it is our system in making such a settlement to confer proprietary rights on the *biswadar*. After this explanation I solicit your explicit instructions as to whether you desire to confer proprietary rights on these people, for if not it would be as well after fixing the State demand to cease from prosecuting the Settlement any further; and thus leave the position between Raja and *biswadars*, and *biswadars* and cultivators for the present undefined. On the other hand should you desire to confer proprietary rights on the *biswadars* the definition of these rights can be proceeded with as in our Provinces."

After criticising the advantages of creating a class of middlemen or proprietors who rack-rent the actual cultivators, Captain Nixon concludes with the opinion that in British provinces we legislated blindly by giving the *biswadars* a proprietary interest where they previously held only a "tenant right."

44. Captain Nixon then goes on to explain his assumed rent-rates and how he arrives at them. I quote here the rates of the Bhusawar *pargana* converting them from rates per acre into rates per *bigha*:—

Class of soil.				Circle I.	Circle II.	Circle III.	Circle IV.
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Chahi	...	...	...	2 13 0	2 6 6	2 3 0	1 7 0
Sairaba	...	...	...	2 2 0	1 13 0	1 10 0	1 1 0
Barani	...	...	...	1 6 0	1 3 0	1 2 0	0 11 0

He adds :—

"The old tahsil rates of collection or *revenue* rate under the Rajah much exceed the *rent* rate now fixed by me, and the zamindars get a profit (remission) of 33 per cent. and upwards on this rent-rate besides being able by a fixed settlement to bring other land into cultivation without further demand from the State officials."

For the Bhusawar *pargana*—excluding Weir—Captain Nixon proposed an assessment of Rs. 90,785, a reduction of Rs 7,500 on the Summary Settlement Rs. 98, 290—which had been more than 10 per cent. below the average realisations of the preceding ten years—thereby proving the genuineness of his intentions to leave a considerable share of the assets to the Zamindars. He also proposed that the Settlement be made for ten years in the first instance to enable the Maharaja on attaining his majority to ratify it for a further term of years should he think fit.

Had these proposals been accepted and applied to the whole State, as was the intention of Sir H. Lawrence and Captain Nixon, the prosperity of the Zamindars and of the State would have been put on a solid basis, and the revenue history of the State would have been very different. What orders if any were passed on Captain Nixon's proposals the files in the Bharatpur or Abu offices do not show, nor have I been able to ascertain. The people however, when they complain of over-assessment invariably ask to have the jama fixed as "Laland Sahib" (Sir H. Lawrence) or the "Chota Sahib" (Captain Nixon) fixed it 45 years ago.

45. This much is clear that instead of a settlement for 10 years to be continued when the Maharaja came of age, the term of settlement was limited to three years, and the demand for the Bhusawar *pargana* so far from being reduced from Rs. 98,290 to Rs. 90,785 was raised to Rs. 1,10,725 and is now Rs. 1,48,708 or 65 per cent. above the jama proposed by Captain Nixon. Enhancements on a similar scale (see paragraph 38) were taken in all tahsils but Biyana, although Sir H. Lawrence and Captain Nixon were both of opinion that considerable reductions on the Summary Settlement were necessary; while nothing was settled as to the status of the zamindars. Thus a golden opportunity of placing the revenue administration on a secure basis was lost, and though, as will be seen, one Political Agent after another took up the question of reassessment, they dealt with it in a tentative and timorous way lest their action should hamper the Chief when he should come into power.

The term of the three years' settlement expired with the *rabi* of 1862, and the Political Agent, Lieut. Walter, writing in November 1861 proposed that a new Settlement should be made for a longer period *i.e.* for six years, so

that its expiry might coincide with the Maharaja's coming of age in 1868. This was sanctioned by the Agent to Governor General who added that—

“the Summary Settlement of Captain Nixon and the three years' settlement of Major Bouverie have both worked satisfactorily, and the capabilities of each village ought now to be so well known as to render the new assessment a work of comparative ease, even though it is fixed for a longer period. I beg that you will carefully make full enquiries in each village before assessing so as to ensure an equitable and popular settlement, bearing in mind that justice to the ryot is of higher importance than an increase to the State revenue”.

The re-assessment, for it was nothing more, was carried out by the revenue officer—Ahmad Hussain—under the supervision of the Political Agent, and the result was another considerable addition, averaging 7 per cent. for the whole tract, to the State demand.

46. This new assessment appears to have worked well and the demand to

Six years' settlement.

have been paid with reasonable fulness and punctuality. The term expired in the *rabi* of 1868. The Political Agent writing in September 1867 proposed that a new settlement for a term of 20 years, to which the Council and the young Maharaja agreed, should be made from the autumn harvest of 1868. He negatived the suggestion to have this settlement carried out by a British Officer, as owing to the several short-term settlements already made the value of land was well known, and the records of former settlements together with the papers of previous years would form a sound basis for fixing the new demand. He therefore proposed to form an assessing committee of experienced Revenue officers to be associated with the Deputy Collector, Mr. Heatherly, who should after examining the records of past realisations and inspecting each estate give their opinion to the future assessment, the final decision being passed by the Political Agent in the presence of Maharaja.

The system proposed though a rough and ready one, would if worked by honest officials possessed of sound local knowledge have probably secured a fair demand. The work was begun on these lines but owing to the scarcity and bad harvests of 1868-69, the settlement was postponed and the demand of six years' settlement continued till the close of the year 1870-71.

47. By that time the late Maharaja had come into power and his first step was Temporary revision of the six years' settlement to add 10 per cent. all round to the existing demand with effect from the years 1871-

72. An indiscriminate enhancement of this nature must inevitably have given rise to inequality and excessive taxation in certain tracts and in a great number of individual villages, but the Maharaja justified his action by quoting the opinion of Captain Powlett, Political Agent, in the administration Report of 1871-72.

“I have good authority for saying that the assessment can be immediately raised by 2 lakhs without oppressing the people”.

The new demand was however paid almost in full for the 2 years 1871-72 and 1872-73, as during the sixteen years of the minority the agricultural population had increased in prosperity, cultivation had considerably expanded, great numbers of new wells had been sunk and old ones restored with the help of State loans, and the irrigation system had been developed and extended in the hands of a competent Engineer.

48. Meantime the Maharaja was pushing on the work of a new assessment

Ten years' settlement by the late Maharaja. by means of a committee. The result of their labours—of which there is no other record—was to enhance the demand for the whole State from Rs. 16,90,202 to Rs. 20,16,584 an increase of 20 per cent. In these tahsils the increase on the previous demand was Rs. 76,444 or about 12 per cent. and as compared with Major Nixon's Summary Settlement 15 years before it reached the enormous amount of Rs. 2,11,519 or over 40 per cent. Although the Political Agent in reporting on the new assessment justified the enhancement taken and accepted the Darbar's assurances that the settlement far from being a hard one would bear further increasing after a period of years, I have no hesitation in saying that coming after a series of enhancements, the last of which—at an all-round rate of 10 per cent.—had been made only two years before, the new settlement was grossly excessive, and even if it had not been strained to the breaking

pitch by the famine of 1877-78, it must inevitably have broken down of its own weight. The pressure of over-assessment was felt all the more because no steps were taken to prepare any record of rights or to secure an equitable distribution of the liability. The committee, it is true, professed to frame soil and rent-rates according to the accepted principles of assessment and to leave one-third of the assets to the Zamindars, but this was merely part of the policy of make-believe with which the Bharatpur administration successfully deceived the outer world for over 20 years. The sole object was to wring more money out of the people, while at the same time the State in return gave them no help towards developing their resources, but absolutely neglected the duty of maintaining the irrigation works, and allowed the richest parts of the State to become a desert devastated by the uncontrolled floods of the Banganga and overrun by thousands of wild cattle. For a few years the zamindars aided by the good seasons and the accumulations of past years were able to meet the new demand and arrears were small, but the famine of 1877-78, and its effects caused a general cataclysm in which hundreds of estates disappeared altogether, and from which hundreds more have not yet fully recovered.

49. The effects of the famine in these tahsils were practically the same as already described in paras. 59-67 of the report on the northern tahsils, *viz.*: (1)

decrease of population owing to death and emigration; (2) depopulation and desertion of estates owing to the loss of cattle and agricultural resources, the break-down of credit, and the general panic among the people; (3) the criminal neglect of the Darbar to take any adequate measures of relief, and its ill-timed action in endeavouring to extort the full demand from a starving and impoverished people and to compel the *baniyas* to sell grain at fixed prices and make advances to the zamindars; (4) an enormous decrease in the cultivated area, and a deterioration in agriculture generally owing to want of labour and capital to work the land; (5) the beginning of the enormous arrears of land revenue which have continued almost without interruption up to the present date; (6) a general transfer of estates and holdings either compulsorily—by the State for payments of arrears, etc., or voluntarily by the owners to escape revenue liability.

50. These will be incidentally referred to in this and succeeding chapters.

History of revenue collections and The point bearing most directly on the arrears up to date. new assessment is that of revenue collections which I shall now consider in detail.

From 1855-56 to 1876-77 the collections of revenue had been astonishingly

(1) Prior to the famine year of 1877-78. good for a Native State considering the high assessment. In Bhusawar the total arrears were only Rs. 18,177 of which Rs. 10,313 were subsequently collected leaving only Rs. 7,864 actually now in balance. In the other tahsils too the arrears must have been comparatively little as the amounts now outstanding from 1855 to 1877 are only—Rupbas, Rs. 14,379; Oochain, Rs. 5,299; Bhusawar, Rs. 22,489.

The demand and arrears, including cesses, for 1877-78 and the four following years were as follows:—

(2) 1877-78—1882-83.

Name of year.	RUPBAS.			OOCHAIN.			BIYANA.			BHUSAWAR.			BALLABGARH.		
	Demand.	ARREARS.		Demand.	ARREARS.		Demand.	ARREARS.		Demand.	ARREARS.		Demand.	ARREARS.	
		Realised.	Incurred.		Realised.	Incurred.		Realised.	Incurred.		Realised.	Incurred.			
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1877-78 ...	1,44,328	1,428	40,857	1,78,869	873	683	1,95,553	1,072	18,323	2,22,428	32	27,748	...	...	...
1878-79 ...	1,43,618	928	41,541	1,89,973	2,948	10,024	1,95,750	0,591	3,400	2,29,138	1,960	14,314	...	...	...
1879-80 ...	1,50,152	1,676	40,063	1,86,838	8,364	2,450	1,68,430	5,770	2,702	2,41,932	18,081	11,508	33,935	...	2,651
1880-81 ...	1,51,028	1,439	39,492	1,87,888	2,591	13,395	1,89,280	4,651	10,357	2,37,870	6,838	35,721	33,815	...	2,965
1881-82 ...	1,50,767	1,386	20,197	1,97,127	6,560	15,109	1,99,950	4,630	2,709	2,41,275	7,044	21,624	35,939	1,294	1,993
Total ...	7,40,490	8,854	1,88,750	9,30,593	21,336	41,601	9,88,963	22,714	37,041	11,72,041	34,555	1,16,915	1,03,689	1,294	7,696
Average ...	1,48,099	1,371	37,760	1,87,939	4,267	8,333	1,97,793	4,513	7,528	2,34,528	6,911	22,163	34,563	431	2,632

These figures show that in disregard of the intense agricultural distress the State not only formulated the full demand from year to year, but also endeavoured to realise the arrears of each year in subsequent years. Meantime the resources of the Zamindars were being gradually exhausted and even when the years of drought passed away and good seasons returned they were unable to meet their liabilities. Thus for the whole period of five years the net arrears deducting sums realised within the period (excluding Ballabgarh) and their proportion to the total demand were as follows :—

Details.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Total.
Total arrears in Rs. ...	1,81,896	20,325	14,927	76,160	2,93,308
Percentage of total demand.	25	2	1.5	6.5	...

From this it appears that the famine fell very unequally on different tahsils. Rupbas which has a stiff soil requiring a heavy rainfall, suffered most and one-fourth of the demand remained in arrears. Bhusawar came next with arrears amounting to one-fifteenth, while in Oochain and Biyana the arrears were not very heavy and a considerable portion was paid off in the period leaving only 2 and 1.5 per cent. respectively in arrears at its close. No rainfall statistics for these tahsils are available during this period. They would no doubt help to explain the greater severity of the distress in Rupbas. The annual reports however show that the rainfall of 1880-81 was very deficient throughout the State, and that accounts for the large arrears of that year in all tahsils and delayed the recovery of the tract from the famine of 1877-78. The cultivated area of years prior to 1881-82 is not known. On the cultivation of that year the incidence of the collections per *bigha* were—

Rupbas.	Oochain	Biyana	Bhusawar.
Rs.	Rs.	Rs.	Rs.
2-1-8	1-10-0	1-9-3	1-6-3

which is higher, and in the case of Rupbas and Oochain very much higher, than the present incidence.

In 1882-83 the 10 years' settlement expired, and the demand was revised and reduced by about a lakh in the five northern tahsils—Gopalgarh, Pahari,

Kama, Dig, Kumber—which were supposed to have suffered most from the famine and the drought of 1880-81. Though these tahsils were equally in need of relief none was given. The old demand was maintained and attempts made to realise the arrears. The only concession given was that in consequence of the drought of 1883-84 the old arrears prior to 1855-56 were remitted; but Sir H. Lawrence had given directions to this effect 30 years before, so the boon was an empty one.

The total and average demand, arrears, and incidence for the next 8 years 1882-83—1889-90, are shown in the following table :—

Detail.	RUPBAS.		OOCHAIN.		BIYANA.		BHUSAWAR.		BALLABGARH.		Total.
	Total.	Average.	Total.	Average.	Total.	Average.	Total.	Average.	Total.	Average.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Demand—revenue and cesses ...	11,57,393	1,44,074	15,45,505	1,93,188	16,70,309	2,08,810	20,18,348	2,52,093	3,04,682	38,085	60,06
Realised—revenue and cesses ...	8,81,683	1,10,873	13,80,721	1,72,500	10,22,013	2,02,830	17,97,339	2,24,668	2,83,311	35,780	50,71
Old arrears realised ...	7,787	973	19,167	2,398	73,169	9,140	10,889	2,111	3,723	465	1,20
New arrears incurred ...	2,72,508	31,101	1,61,781	20,508	47,753	5,959	2,21,000	27,628	8,371	2,290	7,24
Cultivated area ...	4,30,553	53,810	8,09,020	1,01,003	10,67,240	1,33,405	12,76,411	1,59,555	1,37,824	19,059	37,20
Incidence per <i>bigha</i>	(a) demand ...	2 11 0	...	1 14 7	...	1 0 0	...	1 0 6	...	1 15 0	...
	(b) collections ...	2 1 2	...	1 11 8	...	1 0 5	...	1 0 0	...	1 13 0	...

In this period therefore the new arrears in Rupbas amounted to 24 per cent. of the total demand, in Oochain and Bhusawar to 11 per cent., in Biyana to only 3 per cent.; and if we allow for the arrears collected the net arrears were—

RUPBAS.		OOCHAIN.		BIYANA.		BHUSAWAR.		BALLABGARH.	
Rs.	Per cent.	Rs.	Per cent.	Rs.	Per cent.	Rs.	Per cent.	Rs.	Per cent.
2,65,021	23	1,45,617	9.5	NIL	NIL	2,04,120	10	14,643	5

In Biyana the old arrears collected exceeded the new arrears by Rs. 25,416 so that the tahsil more than paid its way during this period. As in the previous period the arrears in Rupbas were by far the highest and there is no doubt that the tahsil was grievously overassessed as the incidence of the demand and collections on the cultivated area clearly proves. In Oochain the large arrears were due partly to the damage done by Banganga floods and by wild cattle which threw much land out of cultivation and thus made the assessment an excessive one, the incidence of the demand averaging Rs. 1-14-7 per *bigha* of cultivation. In Bhusawar the wild cattle pest did not exist but several villages had suffered from the Banganga floods which choked the wells and transformed cultivated lands into wastes of arid sand. Moreover many estates were wholly or partly abandoned or managed *Kham*. Here too the incidence of the demand, Rs. 1-9-6 per *bigha*, was relatively high. The Biyana tahsil alone showed rapid recovery.

With the exception of the severe drought in 1883-84 this period was on the whole one of good rainfall and average prosperity, and given a moderate demand all tahsils would have been able to recover from the effects of the famine. But owing to the depopulation, bad revenue management, neglect of the irrigation dams &c. &c., the cultivated area so far from expanding receded considerably in all tahsils but Biyana.

The situation had now become critical in all but the northern tahsils, where the demand of the 10 years settlement had been considerably reduced, and the Maharaja determined on a new settlement beginning with the year 1890-91 to last for a term of 15 years. The first step to this was the levy of a cess of 10 per cent. on the existing demand from every village to meet the cost of the operations, and this brought in Rs. 1,63,674 of which about Rs. 63,600, was actually spent on survey, etc., and the rest went to the State. The next was the appointment of the inevitable Assessing Committee headed by the Court Physician, Rahim Buksh. For absolute incompetency and failure to realise even in the dimmest manner the requirements of the situation, I have never met anything that could approach the proceedings of this Committee. Masses of estimates and calculations were prepared, throughout the dreary maze of which it is impossible to perceive a glimmer of intelligence or common sense except when here and there a Tahsildar with some local knowledge describes the condition of a village in one or two brief lines.

An attempt was made to prepare a record of rights which is the despair of any official who has to refer to it. The sole document of any value is the Field map prepared by imported *amins*. As regards the assessment the Committee generally relied upon the opinion of the Tahsildar, and where he was both honest and capable—a combination not over-common in Native States—the result was fairly satisfactory; where he was a fool or a knave, or where the Committee relied upon their own judgment, the most extraordinary contradictions and inequalities were the consequence. The final result of their labour was to give an enormous reduction amounting to about 30 per cent. in Rupbas, a slight enhancement in Oochain, which was not justified at the time, a considerable enhancement in Biyana which if properly apportioned according to the resources of each estate would not have been unfair, and a considerable and unjustifiable enhancement in Bhusawar which was one of the main causes of the general collapse of that tahsil in the first subsequent year of drought.

As this is the settlement which I am revising, its working may with advantage be examined year by year. The demand and arrears include revenue and cesses.

Year.	Russia.			Czechoslovakia.			Greece.			France.			Belgium.			Banana.	
	Area cultivated.		Demand.	Area cultivated.		Demand.	Area cultivated.		Demand.	Area cultivated.		Demand.	Area cultivated.		Demand.		
	Realised.	Incurred.		Realised.	Incurred.		Realised.	Incurred.		Realised.	Incurred.		Realised.	Incurred.			
1900-01	1,09,075	1,455	13,917	47,470	1,90,102	3,032	13,413	02,062	1,27,438	2,56,412	2,157	13,978	1,61,832	37,018	272	579	19,408
1901-02	1,12,830	2,307	14,650	67,515	1,02,031	4,823	7,778	1,02,991	1,34,661	2,66,134	6,430	13,769	1,08,290	38,061	463	1,109	19,740
1902-03	1,15,330	2,012	7,814	50,810	1,67,421	6,478	7,009	09,172	1,31,025	2,63,086	6,301	9,731	1,75,576	38,151	912	1,172	19,980
1903-04	1,16,433	4,223	0,709	60,113	1,80,730	3,798	5,401	1,00,393	1,20,701	2,61,507	9,418	7,718	1,70,380	38,222	583	617	19,178
1904-05	1,16,012	3,174	6,101	67,267	1,66,007	2,845	7,013	1,05,011	1,31,923	2,61,931	6,000	5,123	1,73,070	37,768	1,104	768	19,313
1905-06 (one harvest)	41,437	903	2,207	60,750	1,68,202	3,623	61,160	84,412	1,18,061	2,01,200	2,251	24,152	1,47,100	38,007	408	1,709	19,464
1906-07	1,15,021	4,063	42,253	57,652	1,89,800	10,556	63,008	91,471	1,10,100	2,00,671	4,713	79,003	1,40,358	38,123	829	2,223	19,012
1907-08	1,14,707	4,238	20,013	78,600	1,00,502	19,340	8,015	1,14,370	1,35,446	2,81,242	19,020	21,063	1,00,566	39,243	1,195	895	20,303
1908-09	1,15,014	6,725	7,610	63,040	1,80,709	10,769	12,735	1,23,093	1,42,080	2,05,104	13,200	22,437	1,70,378	37,548	1,060	1,003	20,809
Old harvest	73,430	1,367	21,621	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total of 9 years	10,29,260	31,127	1,48,760	5,47,803	17,00,122	72,510	1,06,198	9,17,465	11,70,002	23,63,920	60,000	1,01,675	14,65,620	3,31,681	0,767	10,197	1,77,407
Average	1,14,250	3,793	16,532	60,807	1,89,002	8,057	1,88,055	1,01,913	1,30,000	2,62,516	7,668	21,297	1,62,837	37,955	761	1,133	19,712
Average total realisations	1,01,510	...	...	...	1,78,01	...	...	...	...	2,48,917	...	...	...	37,583	...	...	...
Per hectare	1-108	...	...	...	1-120	...	...	...	...	1-124	...	...	...	1-148	...	...	...



The first five years of the nine were a period of good rainfall and average agricultural prosperity. Cultivation increased rapidly in all tahsils; some old arrears were collected; and though the new arrears were considerable in Rupbas, Oochain and Bhusawar, they were due in great measure to an unequal distribution, to the deterioration of several villages close to the Banganga, and to the slackness of the revenue authorities in collecting especially in Rupbas.

(5) The two years, 1895-96 and 1896-97, were years of very severe drought and scarcity almost amounting to famine in this tract. The rainfall was as follows :—

Years.				Rupbas.	Oochain.	Biyana.	Bhusawar.
1895-96	...	...	...	18.83	12.51	18.36	12.04
1896-97	...	...	...	10.35	11.02	8.31	15.19

Both crops failed largely in both years, and compared with 1894-95 the area sown fell off by 20 per cent. in Rupbas and Oochain, by 15 per cent. in Bhusawar and by 10 per cent. in Biyana. Cattle died of starvation, the people began to feel the pinch of hunger and crowded to relief works. The State did nothing to encourage the zamindars by suspending part of the demand, and the pressure employed in collecting the revenue especially in Bhusawar, where even the plough and well cattle were in some cases sold up by the tahsil officials, led to wholesale desertions of agriculturists. In that tahsil alone no less than 2,537 persons or 4 per cent. of the population deserted in these years of whom 1594 sought refuge in foreign territory, and this struck a blow at the prosperity of the tahsil from which it has not yet recovered. The Wal tract in Rupbas, the Rudawal and Jatmai portions of Oochain, and the Dang and Nahera of Biyana also suffered severely. The arrears in these two years combined were equal to those of the remaining seven.

The favourable rains of 1897-98 put new heart in the people; the area under cultivation increased enormously; and two good harvests enabled them to more than meet their obligations in Oochain and Biyana—where the amount of old arrears paid up exceeded that of the new arrears. In Bhusawar the two items nearly balanced one another, but in Rupbas the arrears amounted to over 20 per cent.

The year 1898-99 was one of average rainfall except in Rupbas where it was again short, and in the year just concluded the total rainfall was not deficient. But, as already remarked, nearly all the rain fell in both years in June, July and August; the September rains were almost a total failure, and practically no rain fell in the cold weather months. Hence the autumn and spring crops were decidedly below the average in 1898-99, and in the last year the crops except on sweet wells or inundated lands have been almost a total failure. Thus it will be seen that the steady progress made in the first five years has been undone by the disastrous character of the last five. It should be explained that the arrears since 1890 have been considerably swelled (1) by the inclusion of fees due for coercive processes the amount of which included in the arrears is Rs. 9,842 in Bhusawar alone, Rs. 9,086 in Rupbas; Rs. 6,613 in Oochain and Rs. 3,954 in Biyana, (2) by showing as arrears in *kham* villages or deserted holdings the difference between the settlement demand and the sums actually realised. The arrears under this head are Rupbas nil, Oochain, Rs. 9,956; Biyana, Rs. 19,158; Bhusawar, Rs. 35,528.

Deducting sums realised in subsequent years, the arrears now outstanding for the 9 years 1890-91—1898-99 and their proportion to the total demand are



as follows :—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
Rupees ... ..	1,30,623	1,38,794	66,650	1,52,954	7,541	4,96,562
Per cent. ... ..	12.5	8	3	6.5	2	7

On the other hand the following sums were realised during this period on account of old arrears.

Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
14,269	23,056	21,824	30,288	4,101	93,538

#### 51. Details of the total arrears now outstanding from 1855-56 to 1898-99

Total arrears of land revenue and cesses now due. in each tahsil are shown in the following table the absolute accuracy of which, though prepared after the most searching enquiry from materials supplied by the tahsil offices, I cannot however guarantee.

Period.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1855-56 — 1876-77 ... ..	14,379	5,299	22,487	7,900	...	50,125
1877-78 — 1881-82 ... ..	1,68,750	41,661	37,641	76,460	18,234	3,62,746
1882-83 — 1889-90 or 1890-91 in Rupbas.	2,72,808	1,64,784	47,753	42,273	16,599	5,44,217
Total up to last settlement ... ..	4,75,937	2,11,744	1,07,891	1,26,693	34,833	9,57,088
Of which since realised ... ..	14,269	23,056	21,884	30,288	4,101	93,598
Balance still due ... ..	4,61,668	1,88,688	85,997	96,405	30,732	8,63,490
Arrears since last settlement ... ..	1,30,623	1,38,794	66,650	1,52,954	7,541	4,96,562
Grand Total still due ... ..	5,92,291	3,27,482	1,52,647	2,49,359	38,273	13,60,052

The total arrears for the tract are Rs. 13,60,052 or nearly two years land-revenue demand.

#### 52. Of this enormous sum Rs. 8,63,490, representing all the arrears prior

Proposals for the remission and collection of these arrears. to last settlement, have already been remitted by the State in commemoration of the birth of a son and heir to His Highness the Maharaja last year. The arrears since last settlement *i.e.*, down to *rabī* 1899 have now to be disposed of. In the course of my village inspections I have enquired carefully into this subject, and in the arrangements made for the settlement of *kham* villages and deserted holdings the amount of arrears to be levied has already been settled and accepted by the zamindars.

The general causes of these arrears, *viz.*, over-assessment, a bad distribution, damage caused by Banganga floods in all tahsils and by wild cattle in Oochain, neglect of irrigation works, the break down of the assessment in *kham* villages and deserted holdings, the great number of bad harvests in late years, and to a great or less extent in all tahsils slackness or collusion on the part of the tahsil officials have already been referred to.

An officer with a wide experience of revenue management in Native States has recently pointed out to me, that there are three methods of calculating the collections—

- (1) the amount actually realised from the people;
- (2) that which comes into the hands of the tahsil officials;
- (.) that which actually finds its way into the State coffers.

The last falls short of (1) and (2) in a greater or less degree according to the varying efficiency of the revenue administration. In these tahsils I fear the amount realised by the State by no means represents what has been taken from the people.

A good deal has stuck to the palms of the Patwaris and subordinate tahsil agency, while if the Tahsildar was slack or corrupt he found only too many opportunities for feathering his own nest at the expense of the State. Up to the last few years there was no attempt at supervising the Tahsildars' work, and the traditional policy was that they should be given an absolutely free hand in collections and when these were in progress the superior revenue officials were to refrain from touring or interfering with them in any way.

A consideration of all these facts and of the present condition of the people makes it essential to take a lenient view in deciding what amount of these arrears is now to be realised. My proposals based on a village-to-village examination of the facts is to realise as follows—

Rupbas.	Oochain.	Biyaan.	Bhusawar.	Dallabgarh.	Total.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
20,000	20,000	15,000	27,500	2,500	85,000

and to remit the remaining Rs. 4,11,652 as irrecoverable.

The arrears due on *Mafi* holdings since last settlement will be considered in Chapter IX, Part II. All other miscellaneous arrears for *Takavi*, salt, wells, etc., prior to last settlement have already been remitted. In giving out the new assessments the total amount of arrears to be levied will be fixed and as a rule it will be distributed over the 20 years term of settlement and realised regularly as part of the State demand. This system has been found to answer well in the tahsils already assessed. It is possible that the sum-total of the arrears when fixed village by village may be above or below the amounts above indicated, but I shall endeavour to work up as closely as possible to them.

53. The following table shows the extent to which holdings have been abandoned by deserters who have not yet returned.

Tahsil.	Total number of estates.	Number in which owners deserted.	UP TO AND INCLUDING 1877-78.				SINCE 1877-78.				TOTAL UP TO DATE.			
			No. of deserters.	No. of holdings.	Area.	Jama.	No. of deserters.	No. of holdings.	Area.	Jama.	No. of deserters.	No. of holdings.	Area.	Jama.
Rupbas	78	61	493	306	4,358	4,450	561	264	3,951	4,110	1,637	570	8,309	8,560
Oochain	96	83	581	164	16,180	14,091	841	278	22,692	21,691	1,425	442	38,872	36,278
Biyaan	163	134	2,748	1,318	61,803	31,480	1,184	811	25,577	16,679	3,932	2,159	87,380	61,159
Bhusawar	149	137	1,710	849	60,169	67,856	1,633	618	54,664	41,733	3,343	1,667	1,14,833	89,680

In Rupbas the deserters number one-third of the owners still left, and the area deserted is about one-twelfth of the whole. In Oochain too the number of deserters is equal to one-third of those remaining, but their shares represent one-fifth of the area. In Biyana the number of deserters is equal to half the present number of owners and the abandoned area is more than one-fourth of the whole; while in Bhusawar the desertions were on a scale even more enormous, the deserting owners numbering one-half of the present number and the abandoned lands representing nearly two-fifths of the Jama of the tahsil. In all tahsils half or more of the desertions occurred in the famine year of 1877-78 or prior to it, and were primarily due to the harsh and shortsighted revenue policy then pursued. After that desertions on a very large scale took place in 1895-96 and 1896-97, especially in the Bhusawar tahsil, where they were due to the mistaken zeal of a tahsildar in harshly enforcing the full demand in years of drought and scarcity. The desertions in other tahsils of recent years have been comparatively few, as less vigour was employed in realising the revenue, and employment was found for the destitute by the Public Works Department in repairing *bands*, digging canals, etc.

Within the last year though the scarcity was greater than in any year since 1877-78 there were practically no desertions owing to the liberal policy pursued by the State in suspending part of the demand and opening relief works; in fact great numbers of the old deserters have returned and resumed possession of their holdings.

54. Besides the enormous areas voluntarily abandoned by the impoverished owners; when estates fell into arrears and the owners were unable to arrange for payment the State interfered and of its own motion transferred whole estates or shares of them to outsiders, or the owners under pressure of the State demand themselves made such transfers. The arrears so transferred from the famine of 1877-78 up to date are as follows.

Tahsil.	Detail.	Number of villages transferred in whole or part.	Area.	Jama.	Purchase money.	REMARKS.
Rupbas	By order of State	17	9,342	6,301	6,765	
	Mutual agreement	8	2,617	1,025	536	
	Total	25	11,959	7,326	7,301	
Oochain	By order of State	11	5,805	4,523	2,487	
	Mutual agreement	9	1,661	1,261	1,533	
	Total	20	7,467	5,784	4,020	
Biyana	By order of State	7	1,138	1,237	853	
	Mutual agreement	10	3,383	2,160	...	
	Total	17	4,521	3,457	853	
Bhusawar	By order of State	10	7,723	6,058	4,867	
	Mutual agreement	33	11,334	7,873	7,773	
	Total	43	19,057	13,931	12,640	

In this way whole estates or shares in them paying 7 per cent. of the present Jama in Rupbas, 3·5 per cent. in Oochain, about 2 per cent. in Biyana and over 5 per cent. in Bhusawar were sold up for arrears by the State or transferred by the owners, and it is a sad commentary on the system that the purchase money in no tahsil amounts to one year's land revenue of the area transferred. The State would have shown not only more humanity but also more enlightened self-interest had it remitted or given lenient instalments for the arrears and encouraged the old owners to stick to their lands.

55. Even the desertions and the compulsory or voluntary transfers, extensive though they have been, by no means exhaust the estates which broke down under the strain of overassessment, bad harvests, and bad administration. A favourite device in the past has been to take estates in which the owners got into difficulties and refused to be any longer responsible for the State demand, under direct management, the State leasing out the land to the old owners as ordinary cultivators or to others at such rates as it considered fit.

Given efficient management this arrangement though not a desirable one might serve as a temporary expedient. As worked in Bharatpur, where *kham* estates are managed by the Naib Tahsildars through the local Kanungo or Patwari generally with an eye rather to their own interests than to those of the State, the system has caused immense loss to the State and further deterioration in the condition of the villages. As an example of the abuses prevalent I may mention a case brought to my notice in Biyana this year where the Naib-Tahsildar had leased 50 *bighas* of land for Rs. 0-8-0 per *bigha* for which, the Tahsildar had no difficulty in obtaining Rs. 3-4-0 per *bigha* and that too paid in advance.

One of the many evils in the old assessments was that where an estate was *kham* or deserted a nominal Jama was fixed and no steps were taken to arrange for its future payment, the result being an enormous accumulation of arrears in such cases. Every case of a *kham* estate or holding has now been taken up, and arrangements made for the abolition of the *kham* system from the new assessment. Where, as generally happens, the old owners agree to accept a fixed assessment and can show their ability or give security to pay it, the land is settled with them in whole or in part, and where they refuse or are unable to accept liability arrangements have been made with other agriculturists.

56. In Rupbas the *kham* holdings are limited to half of one estate and one-third of another, and in both cases permanent arrangements have now been made with the old owners.

In Oochain the following estates (1) Barkoli, (all), (2) Bahrauli (all), (3) Ratauwa (all), Nangla Radha ( $\frac{2}{3}$ ), Kakrauwa ( $\frac{1}{2}$ ), (6) Basi Kalan ( $\frac{1}{2}$ ), (7) Gugrawa ( $\frac{1}{2}$ ), have come under direct management since last settlement. In (1), (4) and (6) the whole area has been restored to the old owners, in (2) and (5) they have been given half the land, the other half going to temporary lessees or other cultivators, in (3) they have retained a  $\frac{1}{10}$  share and voluntarily given  $\frac{6}{10}$  to a relation, while in (7) owing to the desertion of the old owners the share has been transferred to a neighbouring Zamindar. The whole area thus settled in Oochain amounts to 5742 *bighas*, paying a *jama* of Rs. 4,228. Payment of a suitable amount of the arrears the total of which is Rs. 8,774 has been arranged for in each case by easy instalments.

In Biyana the large estate of Farsu, area 7,000 *bighas*, which suffered from Banganga floods has on the application of the Mahomedan owners been managed *kham* since 1885. The estate is now in good working order but as the old owners are incapable of managing it all, a considerable area of waste has been allotted to the zamindars of adjoining villages which had little or no culturable land subject to the payment of *nazarana*; certain occupancy tenants have been recognised as owners of their holdings; and the rest has been given back to the old owners.

There are six other estates in this tahsil, Nangla Bhawa, Bhagori, Samogār, Sarai Bambu, Nangla Honta, Dhareri, in which owing to deterioration by river action the settlement demand could not be paid and the State, instead of remitting or reducing the *jama* of the land thrown out of cultivation or injured in quality, with its usual inclination for *kham* management decided to make the collections *kham*, i.e., proportionate to the actual cultivation. The Settlement *jama* of these estates was Rs. 6,048 while last year the collections were Rs. 4,362 and the arrears on the nominal demand are Rs. 15,132. All these estates have now agreed to accept a fixed *jama* based on present conditions and any future changes will be taken account of under the diluvion-alluvion rules that will be framed.

In Bhusawar six whole estates (1) Nangla Man Singh, (2) Kotke, (3) Jat Balai, (4) Lalpur, (5) Jiwad,—all of which have suffered from Banganga inundations,—and (6) Sir Sirkar, representing the State *patti* in the town of Weir had come under *kham* management. The measures taken to control the Banganga floods have facilitated the settlement of Nos. (1) to (5). In (1) and (2) the whole area has been settled with the owners, and in (3) to (5) after deducting areas of excess waste to be leased to others for cultivation the rest has been made over to the zamindars; (6) will remain State property but fixed leases for the term of settlement have been given to the cultivators. Besides these six estates the township of Pallabgarh being the personal property of the Jagirdar is managed direct while the Jagir is under attachment and this arrangement will continue in view of its probable restoration.

There are a few other cases pending besides the above mentioned, but in all of these permanent arrangements will be made before giving out the new assessments in order to secure that no estate or holding may remain under direct management.

57. Besides estates managed *kham* in which the owners still live and hold

Deserted shares or holdings and part of the cultivation, there is a great number of estates or holdings out of those arrangements now made.

shown in para. 53 still derelict owing to the desertion of the owners and the refusal of the heirs or relations to take them up. In Rupbas there are no such holdings. In Oochain the area is inconsiderable amounting to only 276 *bighas* in the three estates of Lulkari, Atari, and Tehri Brahmin, and this has now been settled generally with the old owners or their heirs or relations.

In Biyana the area still derelict amounts to 2,421 *bighas* in the four estates of Jhamri, Bhuga Maroli, Mehrabar, and Sheopura. In these also arrangements have been made with the old owners where forthcoming or with other agriculturists of the village. These have already been put in possession and have accepted full liability from the present *khariif* harvest.

In Bhusawar for reasons already explained the abandonment of shares and holdings owing to the desertion or refusal of responsibility by the owners had reached a pitch which unless seriously grappled with threatened to involve the whole tahsil. In addition to the large areas transferred under pressure of the assessment and several estates held *kham*, in no less than 49 estates were there 122 deserted holdings or shares covering an area of 19,605 *bighas* assessed at Rs. 15,966. About 80 per cent. of these holdings had been deserted since the settlement of 1890, chiefly in the scarcity of 1895-96. Such holdings were generally managed by the tahsil through the Patwari who loaned them to the zamindars of the village or to others at his own discretion. The zamindars had no interest in cultivating the land as this rendered them liable for the full assessment, which was generally excessive, whereas by allowing the land to run out of cultivation they had the benefit of the grazing and no revenue responsibility. In this way the cultivation of such lands gradually fell off, while the arrears being calculated on the nominal *jama* increased, and owing to both these causes no one would come forward to take up these holdings. The prompt settlement of this difficult question was however a necessary preliminary to the re-assessment. Each case was worked up by the Deputy Collector M. Hira Singh and when on tour in November last I called up the Zamindars, fixed the amount of the arrears since last settlement to be realised—generally taking one-

third or one-fourth—and in this way and also by assuring them that the new *jama* would be distributed by soils not by shares encouraged them to assume responsibility. The cases were then made over to the Deputy Collector to perfect the arrangements, which he did with such success that the old owners were induced to return in the majority of cases and resume possession and liability, and where they were not forthcoming other Zamindars in the village or adjoining villages willingly took up the holdings. Where the owners were without adequate means *Takavi* was advanced to them for seed and bullocks to the extent of about Rs. 3,000. Up to 1st April 1895 deserted holdings had been settled in this manner in 44 estates. The present *jama* of the area so settled is Rs. 14,881, and the arrears to be realised Rs. 8,693 out of a total of about Rs. 27,527. All the remaining cases have I think been since settled.

No less than 109 of the old owners have returned—for the most part from foreign territory, and it is estimated that the result of the scheme has been to increase the number of ploughs by 300 and the population by 1,000.

58. The following table shows the population of these tahsils and of the whole State by each census since 1867.

Tahsil.	1867.	1881.	1891.	1898-99.	DETAIL IN 1891 BY SEX AND RELIGION.						
					Males.	Females.	Hindu.	Musalman.	Jain.	Others.	Total.
Rupbas ...	30,322	34,134	30,186	26,352	16,351	13,835	27,656	2,512	18	...	30,186
Oochain ...	50,504	49,840	47,736	43,443	25,695	22,180	43,047	4,239	449	...	47,736
Biyana ...	70,347	76,560	75,126	67,919	40,616	34,450	70,605	4,194	327	...	76,126
Blhusawar ...	72,076	72,341	73,728	62,163	...	...	...	...	...	...	...
Ballabgarh ...	9,999	8,511	8,935	7,550	...	...	...	...	...	...	...
Total ...	82,900	80,852	82,683	69,703	44,134	38,520	77,135	4,009	569	...	82,683
Total of Southern Tahsils	2,53,142	2,40,394	2,35,710	2,02,416	1,26,716	1,08,694	2,16,443	15,914	1,363	...	2,95,710
Total of State ...	7,43,716	6,45,540	6,40,303	6,20,645	3,47,830	2,92,473	5,28,620	1,07,280	1,409	6	6,40,303

The official enumerations show (1) a slight decrease of 2·5 per cent. in these tahsils between 1867 and 1881, whereas the population of the whole State fell off by 13 per cent. in the same period, (2) a further slight falling off of about 2 per cent. between 1881 and 1891 the population of the State showing a decrease of less than one per cent. in that period. As a matter of fact the depopulation by drought, famine, etc., was probably as great in these as in the other tahsils, but has been disguised by the fact that since 1867, several villages have been transferred from the Bharatpur tahsil to Oochain and Biyana and from Akhegarh to Blhusawar. To be quite accurate the comparison should be based on the total population of the villages at present in each tahsil at successive enumerations, but data for this are not forthcoming. The census made during Settlement operations in 1898-99 shows a decline of over 33,000 or 14 per cent. in the population of these tahsils since 1891. This lends colour to the suspicion generally entertained that the figures of 1891 census were "adjusted"—to use a euphemistic term—in order to conceal the falling off in population. When the census of 1867 was made the State was undoubtedly, owing to the careful administration during a long minority, at the high-water mark of prosperity, and the severest comment on the revenue history since then is that in spite of an industrious agricultural population and abundance of waste land, the population of these tahsils and of the whole State so far from expanding has fallen off by over one-sixth. To conclude the subject of population it may be noticed that the excess of males over females is very marked and between the enumerations of 1881 and 1891 the disparity remained constant.

In these tahsils the vast majority of the population is Hindu; the percentages being Hindus 93, Musalman 6·5, Jains ·5.

59. I may bring this lengthy but necessary account of the revenue history to a close by a reference to the famine of the year 1899-1900. Thanks

Famine of 1899-1900.

to the prompt and liberal action of the administration in suspending a considerable part of the land revenue, in granting *Takavi* for wells and seed, and in opening relief-works wherever required, the State though subjected to a very severe strain, has been saved from the general calamity which ruined its prosperity in 1877-78. The following table shows the weekly numbers on relief works and gratuitously relieved throughout the State since the distress took an acute form.

Month.	1st WEEK.			2nd WEEK.			3rd WEEK.			4th WEEK.			5th WEEK.		
	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.	Relief works.	Gratuitous.	Total.
October	507	...	607	1,193	105	1,298	1,330	135	1,465	3,016	...	3,016	...	...	...
November	1,053	76	1,129	692	63	755	800	37	837	7,484	66	7,550	...	...	...
December	8,423	67	8,490	10,257	913	11,170	11,193	63	11,251	11,329	97	11,426	...	...	...
January	12,295	81	12,376	11,812	176	12,018	11,183	237	11,420	10,500	326	10,826	...	...	...
February	10,238	37	10,275	10,870	676	11,546	11,491	769	12,260	11,567	577	12,144	...	...	...
March	...	...	...	11,391	1,015	12,406	10,955	679	11,634	7,175	2,026	9,203	...	...	...
April	9,293	962	10,255	10,454	965	11,419	11,456	1,023	12,484	...	...	...	...	...	...
May	12,341	1,007	13,348	12,650	1,025	13,675	12,130	1,016	13,146	11,909	1,103	13,012	...	...	...
June	11,598	1,209	12,807	10,807	1,148	11,955	11,016	1,033	12,049	...	...	...	...	...	...

The numbers show a steady increase throughout the cold weather up to the end of February, in March a considerable falling off owing to the harvest operations, in April and May again a steady increase, and in June a tendency to go down as the occasional showers attracted labour to the fields. Unfortunately the delay in the advance of the monsoon has increased the tension. The distress has been greatest in and around the city of Bharatpur and in the central and northern tahsils. These four tahsils had a fairly good rainfall last year and the *khari*f crop was from a 6 anna to a 12 anna one, while there was a very fair *rabi* on the sweet wolls which form three-fourths of the total number.

59-A. Accordingly the revenue collections have been much better than in

the rest of the State as the following figures only just received show.

Tahsil.	Total demand revenue and cesses.	Remission for bail.	BALANCE.			Realised.	BALANCE IN ARREAR.		
			Total.	Amount realisable of which suspended.	Actual demand.		Suspended.	Other.	Total.
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bapnas	1,16,272	...	1,16,272	9,329	1,06,943	89,835	9,329	20,109	36,437
Oochain	1,00,391	...	1,00,391	21,609	1,03,775	1,00,092	21,609	1,783	23,392
Diysna	2,29,094	...	2,29,094	130	2,29,834	2,21,109	130	8,746	6,975
Bhasawar	2,60,701	...	2,60,701	66,675	1,94,026	2,03,410	64,178	3,113	67,291
Ballabgarh	33,932	...	33,932	5,614	28,316	31,350	2,552	...	2,552
Total southern Tahsils	6,31,273	...	6,31,273	1,03,357	7,27,016	7,03,086	67,529	39,740	1,27,577
Per cent.	100	...	100	12·5	87·5	84·5	10·5	5	15·5

Tahsil.	Total demand revenue and cesses.	Remission for hail.	BALANCE.			Realised.	BALANCE IN ARREARS.		
			Total.	Amount realisable of which suspended.	Actual demand.		Suspended.	Other.	Total.
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kumher ...	1,76,865	...	1,76,865	49,353	1,28,512	1,29,143	46,678	1,044	47,722
Akhegarh ...	1,54,625	...	1,54,625	27,120	1,27,405	1,30,848	20,770	2,907	23,677
Bharatpur ...	1,76,632	...	1,76,632	37,592	1,37,040	1,47,402	26,287	1,843	28,130
Nagar ...	3,16,416	16,438	2,99,977	60,937	2,49,000	2,37,872	50,629	11,460	62,089
Pahar ...	2,54,780	2,609	2,51,971	18,581	1,93,387	2,05,073	34,857	12,041	46,898
Kauna ...	1,76,712	4,440	1,72,265	45,397	1,26,868	1,06,162	43,055	22,148	65,203
Dig ...	1,72,917	1,231	1,71,686	19,207	1,12,476	1,03,218	19,207	0,228	19,435
Total remaining tahsils	14,27,746	21,918	14,05,828	3,27,210	10,78,618	10,59,738	2,82,353	60,667	3,43,020
Grand total of State ...	22,59,019	21,918	22,37,101	4,30,567	18,06,534	17,63,441	3,70,211	1,00,416	4,70,627
Per cent. ...	100	1	99	19	80	78	16.5	4.5	21

Thus taking the demand for the whole State—Rs. 22,59,019—as 100, one per cent.—Rs. 24,948—was remitted for damage by hail in the three northern tahsils, 19 per cent.—Rs. 430,567—was placed under suspension, leaving 80 per cent.—Rs. 18,03,504—to be collected. The actual collections came to Rs. 17,63,444 or 78 per cent., while 21 per cent.—Rs. 4,70,627—remained in arrears *viz.*, 16.5 per cent.—Rs. 3,70,211—out of the amount suspended, and 4.5 per cent.—Rs. 1,00,416—out of the actual demand.

In the four southern tahsils 12.5 per cent. of the demand was suspended, leaving 87.5 per cent. to be collected, and the amount collected was 84.5 per cent., leaving 15.5 per cent. in arrears *viz.*, 10.5 per cent. out of the suspended revenue—some of which it was found possible and desirable to collect—and 5 per cent. out of the actual demand.

It will immensely facilitate the working of the of settlement, and remove a fruitful source of future trouble and confusion if these arrears are now disposed of. As a supplement to the proposals in para 52, for the settlement of the arrears down to 1898-99, I now propose that the arrears of 1899-1900 in those tahsils be dealt with as follows:—

Tahsil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total arrears ...	35,437	23,392	8,875	57,291	2,662	1,27,577
Proposed for remission ...	25,437	15,892	6,375	41,791	1,682	89,077
„ „ realisation ...	10,000	7,500	2,500	12,500	1,000	33,500

Then the final result in each tahsil will be—

Tahsil.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Total arrears 1899-91 to 1899-1900 ...	1,66,060	1,62,160	75,625	2,10,245	10,123	6,24,189
Proposed for remission ...	1,39,060	1,34,656	58,025	1,70,215	6,623	5,08,539
„ „ realisation ...	30,000	27,500	17,500	40,000	3,500	1,18,500

The total amount proposed for recovery is the most that the tahsils can bear having regard to their past history, present condition, and the future assessment to be proposed.

As regards the remaining tahsils, the question of the arrears of 1899-1900 will be disposed of in communication with the Political Agent and State Council.



## CHAPTER III.

## GENERAL STATISTICS.

Tenures and methods of distributing the revenue.

60. The following table shows the classification of estates in each tahsil according to tenures :—

Tahsil.	Detail.	ZAMINDARI.		PATTIDARI.		DHATACHARA.		State property.	Kham.	Total.
		Pure.	Joint.	Perfect.	Imperfect.	Perfect.	Imperfect.			
Rupbas ...	Khalsa ...	3	23½	1	34	...	10½	1	½	73½
	Mafi ...	...	2	1	1	...	½	...	...	4½
	Total ...	3	25½	2	35	...	11	1	½	78
Oochaln...	Khalsa ...	1	16	15	43	...	8	2	4	80
	Mafi ...	...	2	...	4	...	1	...	...	7
	Total ...	1	18	15	47	...	9	2	4	90
Biyana ...	Khalsa ...	...	30	12	82	3	23	1	1	163
	Mafi ...	...	2	2	0	...	3	...	...	16
	Total ...	...	32	14	82	3	26	1	1	168
Bhusawar	Khalsa ...	1	20	7	102	1	5	4	...	140
	Mafi ...	...	...	...	6	...	3	...	...	9
	Total ...	1	20	7	108	1	8	4	...	149
GRAND TOTAL		5	85½	38	281	4	54	8	5½	491

The *Kham* estates shown are those which had not been settled when the statistics were prepared. The "State property" includes in Bhusawar (1) the estates of Ballabgarh—really the property of the *Jagirdar*, (2) The *Sir Patti* in Weir—which will be leased to the cultivators for term of settlement, (3) the estate of Nangla Man Singh now given up for cultivation, (4) the State *Rund* of Jiwad. Two-thirds of the estates are held, at least in theory, by shares; one-fifth are owned by a single owner or bodies of joint owners and only one-eighth are held in severalty. This question of tenure will be better understood if considered in connection with the methods of distributing the revenue demand *viz.* :—

Number.	Particulars.	Rupbas.	Oochaln.	Biyana.	Bhusawar.	Total.
1	By shares ...	43	44	106	101	294
2	As fixed at settlement on land ...	4	...	13	3	20
3	By annual soil rates ...	16	34	29	16	97
4	All-round rate on cultivation ...	10	9	1	10	30
5	Lump sums (chikots) on holdings ...	...	...	2	5	7
6	Mafi, Inam and State property ...	5	9	17	12	43
	Total ...	78	96	168	149	491

So that only 20 estates have a fixed *Khewat* or distribution over holdings ; three-fifths of the total number pay the jama according to shares ; one-fifth by soil rates, varying according to the cultivation of each year or harvest ; and the rest either by lump sums on holdings or an all-round rate on cultivation.

61. The general system of distributing revenue liability by shares, where proprietary rights are based on shares, though specious enough at first sight is radically unsound and has been the cause of the ruin of hundreds of shareholders, and of holdings being abandoned and left derelict. Such a distribution to be equitable presupposes (1) that the original partition of the land by shares was made equally and justly, but in Bharatpur this is very far from being the case, as the strongest shareholders seized the best land and wells prior to and retained them on partition, (2) that since the original partition there has been no change of any importance in the relative revenue-paying capacity of the holdings. But this assumption too is far from correct, for in a tract like this, subject to considerable river action, and also much dependent on wells, this factor cannot remain constant over a term of years. One shareholder's well is bitter ; or it runs dry, or collapses, and he is not in a position to renew it ; or his land gets sanded over by a Banganga flood, and goes out of cultivation, and yet he is compelled to pay the same amount of revenue as a shareholder who has none of these disadvantages to contend with. No wonder that under such a blind rule-of-thumb system desertions have been numerous, for a great number of shareholders must be placed under a distinct disadvantage. The fact is that in former assessments no attention was given to the distribution of the State demand. The people were in theory left to arrange this themselves, which in practice meant that it was arranged for them by the Patwari with the aid of one or two pushing lambardars or shareholders who had their own ends to serve. They have now come to recognise the evil results of the old system, and the first question asked when arrangements are on foot for the settlement of deserted holdings is whether the new jama will be distributed as before by shares—in which case no offers would be forthcoming—or by rates on the different classes of soil according to quality. When reassured on this point they were generally found willing to undertake responsibility. Even in joint estates the co-sharers are anxious to pay for the lands in their separate occupation by soil rates. Of course in such cases the first step should be a partition, but from this they have been hitherto deterred by the high fees charged and the trouble and delay involved. There are many large and unwieldy estates, still nominally joint, in which partition is absolutely necessary to put things on a proper footing, and special arrangements will be made for this as soon as possible.

62. The average land-revenue demand per estate on the present jama is in  
 Rupbas, Rs. 1,450, Oochain, Rs. 1,941,  
 Size of estates. Biyana, Rs. 1,312 and Bhusawar, Rs. 1,850.  
 To ascertain the average on the new jama, these figures should be altered in proportion to the alteration of the demand in each tahsil. The proportions of large and small estates will appear from the following table :—

Particulars.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Total.
Estates paying Rs. 500 or less	11	0	38	22	80
„ „ „ 500 to 1,000	18	14	50	31	113
„ „ „ 1,000 to 3,000	39	51	54	63	211
„ „ „ 3,000 to 5,000	5	10	10	18	43
„ „ „ over 5,000	1	5	5	8	19
TOTAL	73	80	167	147	468

From this it is clear that the tract is one of moderate-sized estates. No estate pays Rs. 10,000 or over. The highest revenue-paying estates are in Rupbas—Khanwa—Rs. 5,052; in Ooehain—Pichuna—Rs. 9,957, and Panghora, Rs. 7,007; in Biyana—Biyana town—Rs. 7,483, and Singhara, Rs. 7,355; and in Bhusawar—Bhusawar town—Rs. 9,500, Sarsena, Rs. 6,740.

63. The following table—extracted from Statement V—shows the cultivating occupancy in the year 1898-99. In this and following statistics where the contrary is not stated, *masi* areas have been excluded. In Bhusawar I have shown the Ballabgarh *jagir* separately and State property under cultivation is included as it is assessed; but in Biyana the village of Baretta, which is part of the Ballabgarh *Jagir*, is included in *masi*.

Detail.	RUPBAS.		OOCHAIN.		BIYANA.		BHUSAWAR.		BALLABGARH.	
	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.	Area.	Percentage.
Total area cultivated ... ..	33,019	100	1,23,593	100	1,42,060	100	1,70,378	100	20,899	100
Area cultivated by—										
(1) Owners ... ..	38,835	47	48,031	38	55,439	39	63,850	37	4,814	23
(2) Occupancy tenants ... ..	3,023	5	5,084	4	13,420	10	3,601	2	608	3
(3) tenants free of rent ... ..	1,705	2	2,206	2	3,891	3	5,449	3	278	1
(4) At favourable rents ... ..	169	...	1,632	1	375	...	13	...	...	...
Area cultivated by tenants at will—										
(a) paying in kind ... ..	...	...	...	...	173	...	528	...	...	...
(b) „ Zabti rents ... ..	3	...	2,599	2	...	...	...	...	...	...
(c) „ cash rents at owner's rates ... ..	12,710	15	26,729	22	12,771	9	15,320	9	128	1
(d) „ at other rates ... ..	25,708	31	37,000	31	55,970	39	61,617	36	15,041	72
Total cash rents ... ..	38,427	40	67,317	55	69,750	49	66,937	39	15,169	73
Number of owners excluding absentees ... ..	3,229	...	4,533	...	7,778	...	9,162	...	407	...
Number of proprietary holdings ... ..	672	...	1,359	...	2,173	...	2,422	...	152	...
Detail.	Area.	Jama.	Area.	Jama.	Area.	Jama.	Area.	Jama.	Area.	Jama.
		Rs.		Rs.		Rs.		Rs.		Rs.
Average area of cultivation—										
(a) per holding ... ..	134	...	62	...	61	...	70	...	137	...
(b) per owner ... ..	26	32	27	38	18	27	29	38	45	71
(c) per occupancy tenant ... ..	12	...	8	...	8	...	5	...	4	...
(d) per tenant-at-will ... ..	13	...	9	...	7	...	6	...	0	...

Thus in Rupbas owners as such cultivate nearly one-half of the total area; in the remaining three tahsils from three-eighths to two-fifths; and in Ballabgarh where all the land attached to Ballabgarh town—about one-fifth of the total—is owned by the *Jagirdar* and cultivated by tenants, only one-fourth.

64. The proportion cultivated by owners in all tahsils would have come out higher were it not that the *Kham* villages and deserted holdings—which had not as a rule been settled in 1898-99—are shown as cultivated by tenants even when these tenants are the former owners, many of whom have now been reinstated. Besides the area of *Khudkasht*

shown above, many owners for various reasons, *e.g.*, scarcity or inferiority of their own land, cultivate as tenants in their own or adjoining villages. The extent of such cultivation is as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
Area ...	3,135	14,440	9,800	15,575	1,228
Percentage of total ...	4	12	7	9	6

and if we add this to the area cultivated as owners, the proportion of the total area held by them comes to 46 per cent. in Biyana, Oochain, and Bhusawar, and 51 per cent. in Rupbas which is a very good proportion.

Excluding Ballabgarh the circumstances of which are exceptional, the average area of cultivation per owner ranges from 18 to 28 *bighas* or 7 to 11 acres, and the land-revenue per owner varies from Rs. 27 in Biyana—where holdings are small and population relatively dense—to Rs. 38 in Bhusawar and Oochain. In the Punjab in 1897-98 the average area of cultivation per owner was 8 acres assessed at Rs. 8.

65. The area held by occupancy tenants varies from 2 per cent. in Bhusawar, where the high assessment deterred tenants from urging their claims, to 10 per cent. in Biyana where much of the best well-cultivation is carried on by this class. Prior to the present settlement no enquiry had been made into tenant right. In preparing the new records registers were prepared in which all such claims were entered and disposed of by the officer in charge of the circle after full enquiry. The number of cases decided up to date has been: Rupbas—210, Oochain—824, Biyana—1,487, Bhusawar—600. In the majority of cases the claims were readily admitted by the owners who, where the assessment was heavy or cultivators few, were only too willing to admit others to share their liability. But where land was valuable the claims were often vigorously contested. Cases have also come to my notice in which at the time of attestation, the owners dissuaded the tenants from lodging or prosecuting their claims by the promise that their cultivation would not be disturbed, and the tenants subsequently finding from ejectment proceedings, etc., that they had been deceived have applied now to have their status defined.

The area held free of rent does not exceed 3 per cent. in any tahsil. It is usually so held in return for village service by Brahmins, Purohits, Chaukidars, etc., and now that the owners have come to realise that they have the discretion of including it in the *bachh*, it will probably fall off considerably. In Bhusawar the area held free by *Mina Chaukidars* in return for their duties of watch and ward is 1,415 *bighas* assessed at Rs. 2,500. Land held at favourable rent comes under the same category. The area is inconsiderable except in Oochain where it comes to 1 per cent. of the total.

Rents in kind, *i.e.*, in which the owners take a share of the crop are unknown in Rupbas and Oochain and very rare in Biyana and Bhusawar. Since Moghul times the revenue in these tracts close to Fattchpur Sikri and Agra, has been generally collected in cash, and for the same reason rents have been levied in cash, as the distinction between owner and cultivator has hitherto been so slight in practice that the latter usually paid the State demand direct instead of through his nominal landlord.

In all these tahsils therefore tenants usually pay in cash, and the proportion of the total area held on cash rents runs from 46 per cent. in Rupbas to 57 per cent. in Bhusawar or in round numbers half the area is so held. It will be seen that the area held "at owner's rates" is in all tahsils much less than that held at "other cash rents". The first and natural inference to be drawn from this is that the owners generally exact rents above the standard of "owner's rates".

The true explanation is frequently the very opposite of this, *viz.*, that the incidence of the jama is often so high, or so unequal, or so uncertain, especially where owners pay by shares, that the tenants prefer to cultivate under a *Patta* or written lease agreeing to pay a fixed sum. This point will be further noticed in Chapter VII.

66. The cultivators, where not owners themselves, are generally of the same caste as the owners or village menials—especially Chamars and Kolis. Brahmins, Baniyas, Kachis, and Mallis also cultivate fairly large areas. In the *kharif*, non-owners of all classes endeavour to cultivate a few *bighas*, not so much for the grain as to provide fodder for their cattle. These cultivators have often neither ploughs nor plough-oxen of their own and hire them out from the owners at the rate of 12 annas to Re. 1 per day. Those who are too poor to afford this, break up the soil with hoes and then throw in the seed which explains the saying "Tickle it (the soil) with a hoe, and it will blossom into a harvest". The *Khatili* lands in the beds of the streams furnish ample scope for the village menials who have no agricultural implements. They require practically no ploughing, but much manure and abundant watering, so all that is needed is a donkey to bring the manure and a rope and *gharra* for the irrigation from holes dug in the sandy river-bed. The total area cultivated by tenants of the above class is as follows:—

Details.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
Number of tenants ... ..	731	2,163	2,835	5,416	622
Area ... ..	3,335	8,335	12,414	27,201	3,002

The very large area held by them in Bhusawar is a distinct evidence of agricultural deterioration and weakness, for these tenants are the first to abandon cultivation in years of drought.

Another means of testing the stability of cultivation is the area held in an estate or in a tahsil by tenants from outside. This is commonly known as *pahikasht* and the area so held is—

Rupbas.	Oochain.	Biyana.	Bhusawar.	Ballabgarh.
10,735	1,563	20,148	25,352	3,282

Except in Oochain where owners and resident tenants are numerous, the area is considerable, especially in Bhusawar. This cultivation is in two ways an element of weakness in agriculture—(1) it tends to lower rents for the owners being dependent on tenants from outside have to tempt them by easy terms and cannot exact the full competitive rent, (2) it is the first to be abandoned in years of drought or distress. While on this point I may note that in many villages there were not enough cattle to work the great number of *kacha* wells sunk as a temporary resource within the last year or two (para. 21). Accordingly many of these were worked by hand, a row of men and women taking the place of the pair of oxen in supplying the draught power.

67. There are no estates held on favourable rates of assessment or on Favourable assessments and *Istamarar*. *Istamarari* tenure except Jhala Tala in Bhusawar which is held by one family of the Pathan owners at a fixed *Jama* of Rs. 1,135, while the revenue collected was in 1879-98, Rs. 2,900. The grant was resumed in 1858 for participation

in the mutiny, but subsequently restored in the name of one of the co-sharers who has recently died without issue, and the question of its continuance to the descendants of his brothers who was also implicated in the mutiny disturbances is under consideration. The manner in which the area of *Mafi* and *Inam* in these tahsils has been steadily reduced has been explained in para. 33.

68. Statement IV shows in detail the sales and mortgages as now ascertained by careful attestation—(1) from the summary settlement of 1855 to the settlement of 1890, (2) from 1890-91, up to date. The following table shows the percentage of the total and cultivated area transferred by sale or mortgage up to date—(a) to Zamindars, (b) to non-agriculturists, and the average rate per *bigha*—

Tahsil.	Detail.	PER CENT. MORTGAGED.			PER CENT. SOLD.			TOTAL SOLD AND MORTGAGED.		REMARKS.
		Total area.	Cultivated area.	Average per <i>bigha</i> .	Total area.	Cultivated area.	Average per <i>bigha</i> .	Total area.	Cultivated area.	
				Rs.			Rs.			
Rupbas	To Zamindars ...	14	17	3	8	9	2	23	26	
	To others ...	2	4	8	1	1	5	3	6	
	Total ...	16	21	4	9	10	2	25	31	
Oochain	To Zamindars ...	11	12	4	8	9	1	19	21	
	To others ...	1	1	5	...	...	...	1	...	
	Total ...	12	13	4	8	9	1	20	22	
Biyana	To Zamindars ...	4	8	9	1	2	2	5	10	
	To others ...	1	2	7	5	5	1	15	25	
	Total ...	5	10	8	15	25	2	65	125	
Bhusawar	To Zamindars ...	2	3	3	8	7	1	10	10	
	To others ...	1	1	6	2	3	1	3	4	
	Total ...	3	4	4	10	10	1	13	14	
Ballatgarh	To Zamindars ...	1	2	7	...	...	...	1	2	
	To others ...	1	2	3	...	...	...	1	2	
	Total ...	2	4	5	...	...	...	2	4	

The figures include the transfer of whole villages or shares in them made by the State in or after the famine year (para. 54).

69. The area transferred is highest in Rupbas where one-fourth of the total and nearly one-third of the cultivated area has changed hands, *viz.*, 21 per cent. (of the cultivated area) by mortgage and 10 per cent. by sale; but only one-fifth of the mortgages and one-tenth of the sales have been to non-agriculturists. The total consideration is about Rs. 1,47,000 or  $1\frac{1}{2}$  years land-revenue, and averages Rs. 4 per *bigha* for mortgages and only Rs. 2 per

*bigha* for sales. The reason for this difference is that the sales were made in bad years under pressure of assessment or in payment of arrears and shares in the following villages were sold by the State—

Bansi Bagri ...	$\frac{1}{2}$	Bokoli ...	$\frac{1}{2}$	Binwan ...	$\frac{1}{2}$	Ahlu ...	$\frac{1}{2}$
Nangla Gujar ...	$\frac{1}{2}$	Milsua ...	$\frac{1}{2}$	Ibrahimpur ...	$\frac{1}{2}$	Kheriya Lodha ...	$\frac{1}{2}$
Kundanwara ...	$\frac{1}{2}$	Naiagaon...	$\frac{1}{2}$	Noharda ...	$\frac{1}{2}$		

In Oochain about one-fifth of the total and over one-fifth of the cultivated area have been transferred—13 per cent. by mortgage, and 9 per cent. by sale; but of this only one-twentieth has passed to outsiders. The total consideration is about Rs. 1,11,000 or two-thirds of one year's land-revenue, and the average rate per *bigha* is Rs. 4 for mortgages as in Rupbas, and only Re. 1 for sales. The cause of the low rate in the latter case is the same as in Rupbas. Shares in the following villages were sold up by the State for arrears—

Karai ...	$\frac{1}{2}$	Khanera ...	$\frac{1}{2}$	Gahlan ...	$\frac{1}{2}$	Jarila ...	$\frac{1}{2}$
-----------	---------------	-------------	---------------	------------	---------------	------------	---------------

In Biyana the area alienated is relatively small, *viz.*, one-sixteenth of the total and one-eighth of the cultivated area, and one-fifth of this has passed to non-agriculturists. The area (of cultivation) mortgaged is 10 per cent. and the area sold 25 per cent. of the whole. The total consideration is about Rs. 2,10,000 or one year's revenue demand, and owing to the superiority of the land in this tahsil the rate per *bigha* for mortgaged land comes to Rs. 8 per *bigha* on total and Rs. 14 per *bigha* of cultivated area; while the rate for sales which have generally been made for arrears or owing to pressure of assessment (para. 54) is only Rs. 2 per *bigha*. No transfers on an extensive scale were carried out in this tahsil by the State.

In Bhusawar (apart from Ballabgarh) 14 per cent. or about one-seventh of the cultivated area has been alienated, *viz.*, 4 per cent. by mortgage and 10 per cent. by sale, and over one-fourth of this has been to non-agriculturists. The total consideration is about Rs. 63,000 and averages Rs. 4 per *bigha* mortgaged and only Re. 1 per *bigha* sold. Shares in 10 estates were transferred by the State for arrears, and in 33 estates by the Zamindars under pressure of assessment, and in these forced transfers the average price realised was only about 12 annas per *bigha*, which explains the very low rates for sales. Mortgages in this tahsil are comparatively rare, the reason being that owing to the high assessment, the agricultural depression, and the large area of deserted holdings, the demand for land has been very slack. In Ballabgarh the mortgaged area is 5 per cent. and sales are practically unknown.

Total area alienated.

70. For the whole tract the area sold and mortgaged up to date is—

Detail.	MORTGAGED.		Mortgage money.	Rate per bigha cultivated.	SOLD.		Sale money.	Rate per bigha cultivated.
	Total area.	Cultivated.			Total area.	Cultivated area.		
			Rs.	Rs.			Rs.	Rs.
To Zamindars ...	69,820	45,039	3,52,559	8	20,207	31,786	63,663	2
Others ...	15,529	11,435	64,443	8	9,852	5,732	13,074	2
<b>TOTAL</b> ...	<b>85,349</b>	<b>56,474</b>	<b>4,17,002</b>	<b>8</b>	<b>30,059</b>	<b>37,518</b>	<b>76,737</b>	<b>2</b>

Or in other words 7·5 per cent. of the total and 10 per cent. of the cultivated area have been mortgaged--of which about one-fourth has gone to non-agriculturists; and 5·5 per cent. of the total and 7 per cent. of the cultivated area have been mortgaged, of which about one-sixth has gone to non-agriculturists. In all about one-sixth of the cultivated area has been alienated, of which only between one-fifth and one-sixth has passed into the hands of the non-agricultural class. The proportion alienated is almost the same as in the central tahsils, but non-agriculturists have taken much less in these tahsils. The causes of this are manifold, *viz.*:—(1) There are few wealthy money-lenders. (2) Hitherto the land has had little attraction for and yielded little profit even to the cultivating owners, and was more likely to prove a source of loss than of profit to an owner who could not cultivate himself. (3) The Zamindars, though poor, endeavour and are often able to finance one another. (4) There is a strong feeling against land passing into the hands of outsiders at least by sale, and the State has recently issued orders prohibiting all alienations to non-agriculturists.

71. High assessments therefore and harsh revenue administration, heavily as they have pressed on the people in the past, have in a manner protected them from expropriation. In the adjoining Agra District at the close of the 30 years' settlement in 1875, it was found that no less than 40 per cent. of the area of the district had passed into other hands than those who had held it at the previous settlement—30 per cent. temporarily and 10 per cent. permanently—the average prices being Rs. 7·12·0 per acre for land sold. Given a reasonable assessment and a decent revenue administration in the future, the Bharatpur zamindars will be in a better position than their neighbours in Agra, in so far as they have by the force of circumstances held on more tenaciously to their land.

72. The following table extracted from Statement I shows the total area at last settlement and now (1898-99) and its classification into *masfi*, unculturable, culturable, and cultivated.

Tahsil.	Detail.	Total area.	MAFI OR TAM.		Khalas.	STATE PROPERTY.		UNCULTURABLE.		Culturable.	New fallow.	Cultivated.
			Total.	Cultivated.		Road.	Others.	Hills.	Other roads, gardens, etc.			
Bupbas	1890-91	1,83,682	5,882	...	1,77,700	7,011	...	12,861	11,094	55,859	39,300	51,515
	1898-99	1,82,341	5,719	3,513	1,76,622	7,001	880	13,769	9,273	57,140	5,701	63,049
Oochain	1890-91	2,33,879	31,268	...	2,02,611	1,379	861	5,001	15,322	27,773	49,294	1,02,951
	1898-99	2,32,090	29,377	19,907	2,03,622	1,622	1,018	6,834	10,233	53,600	6,713	123,593
Biyana	1890-91	5,02,572	30,967	...	4,71,606	850	1,786	1,45,045	63,999	80,732	42,133	134,561
	1898-99	5,01,103	30,671	19,609	4,70,432	290	2,401	1,52,367	86,507	75,184	11,533	142,060
Bhusawar	1890-91	3,37,103	21,398	14,860	3,16,706	4,453	265	73,459	...	25,823	45,104	166,586
	1898-99	3,37,594	20,635	15,241	3,16,958	4,458	265	39,870	32,397	46,118	22,482	170,378
Ballabgarh	1890-91	37,816	2,327	1,025	35,489	...	...	6,479	...	2,412	5,168	19,740
	1898-99	36,409	2,010	1,129	34,399	...	...	4,493	4,226	4,074	717	20,690



The total area shows nowhere except in Ballabgarh a variation amounting to one per cent. The maps of last settlement as explained in previous reports have been retained and the areas checked, while all changes in fields, etc., have been brought up to date. The *mafi* area shows a slight decrease in all tahsils and a considerable decrease in Ballabgarh. The decrease is due partly to resumption and to correction of areas. In Oochain it would have been greater were it not that 1,925 *bighas* wrongly entered as *khalsa* at last settlement have now been classed as *mafi*. In Bhusawar the village of Jahanpur, the revenues of which are divided between the *mafidars* and the State, has all been shown as *khalsa* and so has the *Istamrari* village of Jhala Tala (para. 67), but allowance will be made for this in calculating the assessments. The reduction of area by more accurate measurements, and the changes in revenue-free area explain the slight increase and decrease of the *khalsa* area.

Coming to the subdivisions of *khalsa*, the first is "State property" which in its turn is subdivided into "State Runds" and "other," i.e., roads, gardens, etc. Part of the *Rund* area is being allotted for cultivation in Oochain and Bhusawar, but as the property has not yet passed, it is still shown as belonging to the State. The unculturable land is shown under the headings of "hills" the area of which has increased slightly owing to more correct classification, and "other unculturable," e.g., sandy or stony wastes, river-beds, ravines, *nalas*, village-roads, tanks, etc., the area of which shows a decrease in Rupbas and Oochain but a great increase in Biyana, where large areas of the land returned as culturable at last settlement are now quite unfit for cultivation. Culturable land, i.e., old *hanjar* shows a greater or less increase in all tahsils but Bhusawar, owing chiefly to the fact that much of the "new fallow" of last settlement which has not since come under cultivation is now included under the heading of "culturable". The most striking fact in the present classification is the enormous falling off of "new fallow". Apparently at last settlement all land that had at any previous time—no matter how far back—been under cultivation, but was then found to be out of cultivation, was classed as "new fallow". Most of this land has now gone to furnish the great increase in cultivation in Rupbas and Oochain, some has been included in old *hanjar*, and only so much has been shown as 'new fallow' as has actually gone out of cultivation within the last three years.

73. Finally coming to the cultivated area, the expansion in Rupbas and Oochain is enormous, in Biyana substantial, and in Bhusawar appreciable. To arrive at the net increase in cultivation for assessment purposes, we must however deduct the area due to resumption of *mafis*. This is done in the following table:—

Tahsil.	T. tal increase in cultivation.	Deduct resumed mafis.	Add khalsa now included in mafi.	Net increase.	Percentage of increase.
Rupbas ...	31,604	120	.....	31,334	61
Oochain ...	20,612	2,491	1,471	19,592	19
Biyana ...	7,499	456	.....	7,043	5
Bhusawar ...	3,782	825	163	3,120	2
Ballabgarh ...	1,159	36	.....	1,123	6

The area of cultivation is that which was actually sown in the year 1898-99, which was rather below than above the average at least as regards *rabi* sowings, and it may therefore be accepted as the basis of our calculations without risk of error. Even if we take the area sown last year, 1899-1900, it shows

a slight increase in Bhusawar and Ballabgarh, has remained constant in Biyana, fallen off slightly—by 1,000 *bighas*—in Rupbas, and considerably—by 8,000 *bighas*—in Oochain, but that was an extreme case and may be left out of consideration.

74. The following table shows that the area of culturable land, *viz.*, *banjar* and new fallow, is large in all tahsils. Arrangements for the leaving of culturable waste for cultivation.

Tahsil.					Area.	Percentage to cultivated area.
Rupbas	...	...	...	...	68,441	76
Oochain	...	...	...	...	60,322	49
Biyana	...	...	...	...	86,717	60
Bhusawar	...	...	...	...	71,600	41
Ballabgarh	...	...	...	...	4,791	23

Some of this will probably be brought under cultivation without delay under the arrangements now made for the settlement of *Kham* estates and deserted holdings. But even excluding this and allowing a considerable area for pasture requirements, many villages have still large areas of good culturable land, which, unless special arrangements are made, they are never likely to turn to useful account. In such cases I have followed the principles approved last year for bringing into cultivation the excess waste in Bharatpur tahsil, and after making liberal allowances for grazing, etc., have marked off the excess waste in several villages and given it out for cultivation at lenient rates, which vary according to the circumstances of each estate or tahsil but as a rule are as follows :—

1st year	...	...	...	...	4 annas per <i>bigha</i> .
2nd year	...	...	...	...	6 do. do.
3rd year	...	...	...	...	8 do. do.
4th year	...	...	...	...	10 or 12 annas to the expiry of the settlement.

Where the zamindars of the village can prove that they are in a position to break up the land and pay these rates, the lease is given to them by preference. Where they are too poor, too weak, or too indolent to undertake the responsibility, arrangements are made with zamindars of neighbouring villages, if forthcoming, and where this resource fails, with agriculturists from British territory or adjoining States. The areas so marked off to be separately leased are—

Tahsil.					No. of villages.	Area.	REMARKS.
Rupbas	...	...	...	...	9	7,790	Including land allotted to criminal tribes.
Oochain	...	...	...	...	10	8,767	
Biyana	...	...	...	...	2	1,750	
Bhusawar	...	...	...	...	14	11,543	Of this 2,500 <i>bighas</i> has been allotted from State Runds.
Total	...	...	...	...	35	29,850	

The revenue from this source which after a few years will be about Rs. 20,000 has been left out of consideration in Chapter IX.

The arrangements have now been completed in nearly all cases and the lessees put in possession with effect from the present *kharif* harvest. Given a good start, *i.e.*, favourable rains this year, I anticipate that the measure will bring about a rapid increase in cultivation and it will also act as a stimulus to the agriculturists of those villages which from one cause or another have hitherto failed to make good use of their culturable land. In Biyana the land shown as culturable is generally of inferior quality and hence in only a few villages have *chakks* been marked off.

75. The following table shows the details of the cultivated area at last Former and present cultivation by settlement (1890-91) and now 1898-99 :— classes.

Tahsil.	Period.	Total cultivation.	CHAHIL.						Khatili.	SAIRABA.				BARANI.		
			PERMANENT.		Temporary.	CHAHIL SAIRABA.		Total.		Hal.	Sabika.	Barishi.	Total.	Barani.	Bhur.	Total.
			Hal.	Sabika.		Hal.	Sabika.									
Rupbas ...	1890-91 ..	51,516	11,727	3,587	...	...	...	15,314	...	...	...	...	13,121	22,502	515	23,107
	1898-99 ...	63,010	6,786	4,621	1,658	1,255	186	14,486	272	4,072	11,401	260	16,623	43,523	8,140	51,663
Oochain ...	1890-91 ...	102,091	30,299	7,654	...	...	...	37,953	...	...	...	...	18,217	46,811	...	46,811
	1898-99 ...	123,593	17,102	6,371	307	6,771	1,235	32,006	260	21,768	14,417	480	46,725	41,700	2,802	44,603
Biyana ...	1890-91 ...	134,561	44,830	7,832	...	...	...	52,671	...	...	...	...	18,411	63,479	...	63,479
	1898-99 ...	142,060	35,253	7,589	1,000	2,708	200	46,930	559	12,550	3,602	1,827	17,935	61,878	14,678	76,556
Bhusawar...	1890-91 ...	166,506	55,172	14,757	...	...	...	69,929	502	4,162	943	...	5,105	91,000	...	91,000
	1898-99 ...	170,378	40,133	13,908	602	2,427	6	57,074	482	8,408	253	363	9,114	89,967	13,741	1,03,708
Dallaugarh	1890-91 ...	10,740	8,177	1,279	...	...	...	9,447	...	...	...	...	188	10,105	...	10,105
	1898-99 ...	20,800	7,189	1,546	143	115	...	8,692	...	...	229	65	293	7,042	4,883	11,624

The causes of the increase and decrease of the different classes have been commented on in paras. 19—21 and in the remarks on the different tahsils. As the classification at last settlement was a very rough one, it is difficult to compare the subdivisions of each class, *chahi*, *sairaba*, *barani*, but the totals for each class can be compared. The *chahi hal* of last settlement should be compared with the sum of *chahi hal*, temporary *chahi* and *chahi-sairaba-hal* now. The comparison shows that not only has the total *chahi* area decreased, but also the area actually irrigated within one year. The reason as already explained is not a contraction in the number of wells but in their irrigating capacity owing to the recent drought.

The *khatili* area was separately shown at last settlement only in Bhusawar where it now shows a slight falling off.

At last settlement the *sairaba* or inundated land was not distinguished as now into (1) *hal*, inundated within the year, (2) *sabika*, within the last five years, (3) *barishi*, benefitted by drainage from the hillsides. But if we compare the total areas excluding *barishi* which is merely a subdivision of *barani* we find—(1) a considerable increase in Rupbas where however most of the *sairaba* is now *sabika* owing to insufficient rains and neglect of the *bands*, (2) an enormous and genuine increase in Oochain which has benefitted more than any other tahsil by the extension of irrigation works, (3) a slight contraction in Biyana where the *Bareta band* was not in full working and the old *bands* had not yet been repaired in the year 1898-1899, (4) a considerable expansion in Bhusawar owing to the extension of irrigation by new works such as the *Haleyna canal* and the *Lalpur band*. In making the comparison with last settlement I have not included *chahi-sairaba* as it was then included in *chahi*, but in taking a survey of the area now benefitted by inundations or irrigation works it should be included, as it receives considerable benefit in this way.

The *barani* land has increased considerably in all tahsils owing partly to the contraction of *chahi*, partly to the extension of cultivation. *Barani* and *bhur* have now for the first time been discriminated. The *barani* cultivation is 61 per cent. of the total in Rupbas, 56 in Oochain, 54 in Biyana, and 61 in Bhusa-war.

76. The *barani* crops however are a more important factor than even the above percentages represent. To make this point more clear, I show both the cultivation and crops classed as *chahi*, *sairaba*, *barani* in the year 1898-99.

Tahsil.	Detail.	Total.	Chahi.	Chahi-sairaba	Sairaba.	Barani.	Percentage of crops to cultivation.
Rupbas	Cultivation ...	83,049	13,035	1,451	10,895	51,669	...
	Percentage ...	100	16	2	21	61	...
	Crops ...	88,919	8,352	1,599	5,945	73,023	107
	Percentage ...	100	9	2	7	82	...
Oochain	Cultivation ...	1,23,593	23,980	8,026	46,985	44,603	...
	Percentage ...	100	19	7	38	36	...
	Crops ...	1,33,141	17,559	6,915	38,557	70,110	108
	Percentage ...	100	13	5	29	53	...
Biyana	Cultivation ..	1,42,060	43,862	3,063	18,574	76,550	...
	Percentage ...	100	31	2	13	54	...
	Crops ...	1,60,313	38,691	2,955	15,850	1,02,839	113
	Percentage ...	100	24	2	10	64	...
Bhusawar	Cultivation .	1,70,378	64,041	2,433	5,596	1,03,708	...
	Percentage ...	100	32	1	6	61	...
	Crops ...	1,79,590	42,752	2,274	9,373	1,25,197	105
	Percentage ...	100	24	1	5	70	...
Ballabgarh	Cultivation ..	20,599	8,577	115	283	11,624	...
	Percentage ...	100	42	1	1	50	...
	Crops ...	23,195	7,592	108	61	15,134	111
	Percentage ...	100	34	...	...	66	...

The result is that in the year 1898-99, no less than 82 per cent. of the crops in Rupbas, 53 per cent. in Oochain, 64 per cent. in Biyana, 70 per cent. in Bhusawar received no aid from wells, canals, or floods, but were grown purely as *barani*. Of course the figures hardly represent a normal year, as the excess of *barani* crops over *barani* area is in a measure due to dry crops having been sown on *chahi* or *sairaba* lands, which if the well water were more abundant and the *bands* had filled would ordinarily have borne *chahi* or *sairaba* crops. The figures are instructive however as proving the apparent paradox that the less the rainfall the more are the crops dependent on it, owing to the failure of other sources of irrigation.

77. The last column of the statement shows the extent to which land is double-cropped. Even in an indifferent year, the area of crops exceeded that of cultivation by 7 per cent. in Rupbas, 8 per cent. in Oochain, 13 per cent. in Biyana, 5 per cent. in Bhusawar, and 11 per cent. in Ballabgarh. In this respect this tract is superior to the central and northern tahsils and the reason is to be found in the superiority of the wells the great majority of which have sweet water. The soil too is a light clean loam free from *reh* or *kallar*, fertile and easily worked, and if manured it lends itself particularly well to double-cropping. The most ordinary forms are *bajra* and in places maize followed by barley or wheat on *chahi* or by gram in *barani* lands, and cotton followed by *sirā*.

78. The methods of agriculture are the same as those described in previous reports. In this tract most of the zamindars' labour is concentrated on the well lands which are invariably manured and weeded and the tillage is generally superior to that of the northern and central tahsils. When going round Biyana in

March last as the *rabi* was being reaped it was quite exceptional to see a single weed among the well crops, which in the central and northern tahsils at least on bitter wells are often choked with weeds. This absence of weeds is due as much to the clean soil and sweet water as to the weeding. The *barani* cultivation on the other hand is rather rough, but manure is now being used more and more especially for *bajra* and cotton. *Rabi barani* crops, gram and *sarson*, are little grown as the winter rains are very uncertain, and the autumn crop is comparatively secure. The drainage from the hills is partly held up by the great number of *bands* in the hill villages, but much more might be done if small *bands* were made along the field boundaries as in the hilly tracts of the northern Punjab. These would arrest the passage of the hill-water with its fertilising ingredients, and level and improve the soil, which now is apt to deteriorate because the surface is often carried away by the rush of water.

79. Among the special crops grown may be mentioned (1) *zira* or cumin-seed grown as a second crop generally after cotton where water is sweet but scarce and most commonly in Biyana and Bhusawar, (2) *mehndi* or *henna* which is grown in a few villages close to Bhusawar and Biyana, (3) *pan* or betel leaf which is cultivated with great success in five villages—Umrend and Bhagora in Bhusawar, and Khareri, Bagrain, and Khan Khara in Biyana. As this is the only part of the State where *mehndi* and *pan* are grown, the method of cultivation, etc., may here be described.

*Mehndi*.—The seed is soaked for ten days in water, then sown broadcast—often with another crop—and manured. Within two years the shrub grows to a height of about a foot. It is then transplanted and watered and grows to a height of another foot within the next eight years. The plant lasts for 40 or 50 years, and if well pruned, manured, and watered, yields two crops of leaves each year. The leaves if soaked in water and then applied to the hands or face yield the peculiar *henna* dye so commonly used by Hindus in marriage ceremonies. They are also used for medicinal purposes. The yield is from one to two *mans* per *bigha*.

The cultivation of *pan* or betel leaf is a source of considerable revenue to the State. It requires a good soil, sweet water, and protection from the wind and from extremes of heat and cold. Hence it is grown generally under the shelter of hills. The cultivators are known as *Tambolis* and are quite distinct from the owners of the land, but they have a prescriptive right to grow the plant on whatever land they please on condition of paying certain rent and dues to the owners of the land and to the State, as well as duty on every *man* sold whether within or without the State.

The first step is, having selected a suitable situation close to a sweet well, to erect a rectangular shed of loose stones 8 to 10 feet high, and about 200 feet long, by 80 broad, roughly thatched with grass or *sarkanda*. This is known as a *bareja*. Within this are fixed long rows of light stakes made of bamboos, *dhauk* or other available wood, up which the plant is trained like a creeper. These are in parallel rows,  $1\frac{1}{2}$  feet apart, the distance between each stake being about 4 inches. A double row is known as a *pali*, and a *bareja* contains from 20 to 40 *palis*. The soil is richly manured and then prepared with the spade. In this the betel leaf is planted in the month of *Chait*. It soon throws out fresh leaves which trail themselves up the stake. At this stage the young plants are sprinkled with milk and wheaten flour, and the soil is fertilised by the application of *sesamum* oil and oil-cake in the summer and of *sarson* oil in the winter. All this time the plant is being carefully watered, 5 or 6 times a day in the hot weather and at intervals of a couple of days in the cold, by a man who passes down along the parallel rows, *i.e.*, the *pali*, and lets the water flow gently from an earthen *gharra* which he carries on his shoulder using the palm of his hand to temper its force.

In *Jeth* (June) the plucking of the new leaves begins from the root upwards. The original plant yields about thirty leaves in the course of two years, after which the *bareja* is exhausted for the time being and is given up for a year or two, ordinary crops taking the place of the *pan* in the meantime. While the *bareja* is working it is most carefully guarded and no one but the

*Tamboli* is allowed to enter. A single *bigha* ( $\frac{2}{5}$ th of an acre) will contain 72 *palis* which in two years will produce 21,600 leaves each or 15,55,200 to the *bigha*. Of these leaves 9,167 go to a *man* which sells usually for Rs. 9 and pays a duty of 1-8-0 to the State. In two years therefore the produce of a *bigha* will sell for Rs. 1,530 besides paying Rs. 255 duty. The cost of working a single *pali* or double row of plants is as follows:—

					Rs.	A.	P.		
(1)	wood and erection	...	...	...	...	1	0	0	
(2)	straw	...	...	...	...	0	4	0	
(3)	seed	...	...	...	...	0	1	0	
(4)	watering	...	...	...	...	1	0	0	
(5)	Lag Pahota 15 annas	{ $\frac{1}{2}$ to the State	1st year	...	0	7	0		
			$\frac{1}{2}$ to land-owner	2nd year	...	0	8	0	
(6)	State rent (all goes to the State)	Rs. 1	10	0	{ 1st year	...	0	11	0
					{ 2nd year	...	0	15	0
Total Rs.					...	4	14	0	

or Rs. 351 per *bigha*. This does not include the cost of erecting the outer wall of stone or the wages of labour. Of these charges, (4) for watering, *i.e.* filling the reservoir from the well goes to the owner who also receives half of the *lag* or duty known as *Pahota*. This is said to be a payment for the grant of the wood free and as the betel-growers have now to purchase it, this tax the propriety of maintaining which was referred to me in 1897 should now be remitted.

The *pan* of these villages is famous and is exported to Jaipur, Agra, Delhi, etc. The leaves retain their freshness for three months. Mixed with the betelnut of Burma, lime, *katha* (catechu) and the aromatic *elachi* they form the delicacy so favoured by the people of Hindustan.

The total area covered by *barejas*, the area actually under the *pan*, and the revenue derived by the zamindars and the State are shown in the following table.

Name of villages.	COVERED BY BAREJAS.		ACTUALLY PLANTED IN 1893-99.		AVERAGE OF 9 YEARS.		AVERAGE INCOME TO STATE FROM LAND.				Customs duty.
	Area.	No. of barejas.	Area.	No. of barejas.	Area.	No. of patts.	Revenue.	Cesses.	Pahola.	Total.	
Kharera	65	130	28	49	32	858	1,151	245	215	1,611	} 4,252
Bagrain	40	80	19	32	17	453	492	111	57	650	
Khan Khera	39	41	11	27	11	321	261	65	40	366	
Umreud	67	112	19	30	18	...	461	120	198	779	} 1,170
Bhagora	8	17	1	2	2	...	17	4	12	33	
TOTAL	210	380	78	140	80	...	2,402	645	622	3,669	5,422

Thus the average annual income to the State from the 80 *bighas* actually under this plant is Rs. 3,469 or Rs. 43 per *bigha* from the land in the form of revenue, cesses, and *lag pahota*, besides Rs. 5,422 as customs duty, giving a total of Rs. 8,891. The income to the land-owners from their half share in the *lag pahota* is Rs. 522, and they are also paid for the use of the water and get *lam bardari* dues on the land-revenue, while they pay nothing to the State for the land as long as it is under the betel-leaf. The actual growers get certain exemptions from the State—(1) 5 *palis* in every *bareja* are exempted from taxation, (2) they are given small sums for *pugris*, etc., (3) they are allowed 4½ annas per *pali* for *malba* or village expenses, and 1 anna per *pali* as *Ilakk Meh-tari*, or allowance for the headmen.

The crop therefore, limited though the area is, is a very paying one to the State, and the expansion of the area should be encouraged. The best way to do this would be to remit the *lag pahota* as already proposed, and in place of the numerous petty cesses now levied to impose the usual cesses of 2 pice per rupee for *damu* or Patwar-fund and 3 pice per rupee for local rate. These will come to only Rs. 7-11-0 per cent. on the land-revenue, while the present cesses come to over 20 per cent. The taxes now levied press heavily on the growers

and leave them only a small margin of profit. The rates vary in different villages, and the system of taxation and account is unnecessarily complicated. If this is done the land revenue and the customs duty can be maintained at their present rates, and the *malba* and *hakk mehtari* continued as before.

80. In para. 18 (b) (2) reference has been made to the system under which mango trees have been planted in husawar and the income derived from them. A similar custom obtains in Biyana town where any person may plant a tree in another man's land, and thereby is entitled to get half the fruit, the other half going to the owner of the land. In Biyana the State formerly claimed a share of the fruit, but in 1890 commuted this for a tax of Rs. 1-2-9 per thousand which yielded an average income of only Rs. 30 or so against Rs. 1,903 in Bhusawar. In 1896 this tax was remitted. The total number of mango trees in *khalsa* land in each tahsil and the income from sale of this fruit as now roughly ascertained is as follows :—

Tahsil.	Number of trees.	Income to owners.	Former average income to State.	Remarks.
Rupbas ... ..	358	Rs. 29 <sup>(1)</sup>	Nil	(1) From 59 trees in one village.
Oochain ... ..	1,379	798	...	
Biyana { (1) Town ... ..	947	800	30	
	(2) Other places ... ..	161	...	
Bhusawar ... ..	9,329	6,114	1,903	
TOTAL ... ..	12,174	8,002	...	

The income as stated by the zamindars has been compared with that obtained from trees which are State property. Thus in Biyana the average income from 417 State trees is Rs. 401 or Re. 1 per tree. As stated in para. 15, I propose to take account of this source of income in assessing villages, and show the demand for it separately, so that where the owner of the tree is not the owner of the land, he can be made to pay his fair share.

There is some income from the *ber* or wild plum in Weir and in four villages close to Biyana where the fruit is cultivated in gardens, but it is too small to be taken account of in assessing though it will be allowed for in the distribution. *Mahua* trees from the flower of which liquor can be distilled are fairly common in all tahsils, but bring in no appreciable revenue.

81. The following table shows the number of cattle, carts, etc., as recorded in the papers of 1899 and as now ascertained by a special enumeration in 1898-99.

Tahsil.	Detail.		Houses.	Ploughs.	Carts.	CATTLE.								Camels.	Total.
						Oxen.	Cows.	He-buffaloes.	She-buffaloes.	Goats and sheep.	Horses and ponies.	Mules and donkeys.			
Rupbas ... ..	1899 ... ..	...	4,547	1,991	50	3,783	8,129	1,571	357	3,196	277	265	9	17,537	
	1898-99 ... ..	...	5,333	2,915	253	6,205	13,136	6,306	1,019	5,616	499	630	23	31,426	
Oochain ... ..	1899 ... ..	...	8,975	3,744	64	7,374	14,162	2,605	879	5,611	626	421	42	31,723	
	1898-99 ... ..	...	9,655	4,451	331	12,654	17,253	8,556	3,144	8,062	670	1,241	53	62,333	
Biyana ... ..	1899 ... ..	...	11,689	5,301	90	10,817	23,411	9,576	953	17,299	597	468	607	63,716	
	1898-99 ... ..	...	14,318	6,501	204	13,636	29,363	16,620	2,183	30,823	737	1,451	663	94,383	
Bhusawar ... ..	1899 ... ..	...	11,976	4,352	29	8,723	18,960	930	6,764	8,245	390	337	108	43,516	
	1898-99 ... ..	...	13,062	5,243	432	13,622	21,818	3,001	12,060	14,631	696	1,571	132	67,894	
Ballabgarh ... ..	1899 ... ..	...	1,497	475	116	916	1,933	118	632	1,933	42	12	47	6,718	
	1898-99 ... ..	...	1,737	625	53	1,264	2,493	73	1,562	2,326	45	161	6	7,629	

Assuming the figures of last settlement to be correct, there has been an improvement under almost every head in each tahsil. There probably has been some increase but by no means as great as the figures would show, as the statistics of last settlement were undoubtedly incomplete. The increase in ploughs is probably genuine and is of course due to the expansion of cultivation. The number of cattle in all tahsils was in 1898-99 if properly distributed more than adequate for agriculture and the requirements of the people in the way of milk, ghi, etc., but in para. 66 it has been shown that there are many cultivators who have no cattle of their own. In Biyana and in the hilly tracts of Bhusawar and Rupbas, which are owned chiefly by semi-pastoral Gujars, the large areas of waste enable them to keep immense herds of cattle, sheep, and goats. I fear however that the drought of the last two years though not nearly so severe here as in other parts of Rajputana has caused a sensible decrease not only of the surplus cattle but of plough and well bullocks, the extent of which can only be ascertained from a fresh enumeration which I propose to make this autumn. The State must now come to the rescue in such cases and in its own interests as well as those of the people help them with *Takavi* for the purchase of agricultural stock. The average area of cultivation per plough is in Rupbas 29 *bighas*, Oochain 32, Biyana 30, Bhusawar 35 *bighas*, or from 12 to 14 acres, which is not excessive, and is practically the same as for the whole Punjab. Since the enumeration was made there has been a further increase of ploughs owing to the measures taken for the settlement of waste or derelict lands.

82. The area of culturable and unculturable land available for pasture is shown in para. 72, and in all tahsils is adequate or in excess of the wants of the people. The area of State Runds, which after the grass necessary for State purposes is got together is let out for grazing, is insignificant except in Rupbas, where the large Rupbas Rund with an area of 7,001 *bighas* furnishes good pasture to Rupbas and the vicinity. Of the 4,458 *bighas* of Runds in Biyana only 1,500 *bighas* are being retained to furnish *pula* for the State and the rest is being leased out for cultivation. Biyana has only 2 small Runds with an area of 290 *bighas*, and Oochain has one Rund—Karka—with an area of 1,450 *bighas* which will also be probably given up for cultivation.

82-A. The hillsides in the southern tahsils as throughout the whole State are included in the village boundaries and regarded as the property of the zamindars. Hills and arboriculture. In theory it would have been a better arrangement had the State retained a considerable portion of the hills in its own possession, and worked them as forest reserves, but after what I have seen of the abuses and the hardships to the people incident to such a system in Alwar, I would hesitate to propose its adoption for Bharatpur. Besides it would be unpopular and unjust to deprive the people now of rights which they have held unquestioned for so long a period. In view of the evil results of de-afforestation I think however it is desirable that the State should secure the services of a Forest Officer for a few months, who would inspect the various hillsides and report on the measures to be taken to prevent further denudation and promote the growth of suitable shrubs and trees. There is still one relic of State ownership, *viz*, a tax is levied (*lag punchri*) on the grazing of goats and camels. In some cases this is levied only on animals from foreign territory. The question of maintaining this tax has been referred to me, but I shall defer giving an opinion till I have fully inspected the Dang tract next cold weather.

83. Villages with large pasture areas derive some income from grazing fees from outsiders and from sale of grass. Income from grazing and spontaneous products. During the last cold weather all the tract adjoining the Banganga was overrun by immigrants from Jodhpur and Bikanir whose enormous flocks of cattle, sheep and goats, ate up much of the pasture that the zamindars were relying on for the support of their own cattle.

*Pala* grows in profusion where the soil is a sweet clean loam, and here as elsewhere furnishes valuable fodder especially for milch cattle. *Pula* is



found in abundance in the sandy lands along the course of the Banganga and Gambhir, and always commands a ready sale, as the houses of all classes are thatched with it and the huts of the poorer classes are often made exclusively from it.

The income from the sale of *pala* and *pula*, from grazing fees, and water-nuts (*singhara*) grown in village ponds is estimated as follows :—

Article.	Rupbas.	Oochain.	Biyana.	Bhusawar.
	Rs.	Rs.	Rs.	Rs.
Pala ... ..	140	508	382	1,993
Pula ... ..	157	1,514	1,126	1,826
Grazing fees ... ..	467	1,020	303	} 846
Sales of grass ... ..	32	433	1,432	
Water-nuts ... ..	140	28	137	180
Total ...	936	3,503	3,380	4,845

84. Among miscellaneous income that from sales of milk and *ghi* and in Biyana of wool is the most important.

Income from sales of milk, ghi, wool, etc. Accurate information on the subject it is impossible to obtain but it is estimated to be as follows :—Rupbas, Rs. 30,000 ; Oochain, Rs. 40,000 ; Biyana, Rs. 75,000 ; Bhusawar, Rs. 50,000 ; of which probably from one-half to one-third goes to the landowners. This income will be sufficiently taxed by imposing a rate on new fallow and culturable waste.

Carts are fairly numerous in all tahsils and the owners make a considerable income from them by the carriage of stones from the quarries in Rupbas and Biyana to the railway at Bharatpur and Agra. The number of carts so employed and the average income is as follows :—

Tahsil.	Number of carts.	Income.
		Rs.
Rupbas ... ..	80	5,000
Oochain ... ..	61	4,000
Biyana ... ..	50	3,000
Total ...	191	12,000

In Paharpur and Mahalpur-Chura the zamindars get one anna for every cart-load of stone that leaves the quarries, and as the average is 5,000 carts in the year, the revenue from this source is over Rs. 300.

85. The following table shows the average exports and imports of each tahsil and the customs duty paid to the State as far as can be ascertained from the records of the Customs Department :—

Tahsil.	Detail.	Grain, rice, etc.	Cotton ginned.	Oil-seeds.	Country cloth.	Betel.	Miscellaneous (zira).	Total.	Ghi.	Number of cattle.	Total value.	Custom duty.
											Rs.	Rs.
Rupbas ...	Imports in mans...	5,441	...	2	31	...	...	...	...	378	...	...
	Exports in mans...	5,727	250	5,254	...	...	...	...	338	1,020	...	11,120
	Value of exports in Rs. ...	9,163	1,709	21,016	2,106	...	...	41,606	0,760	6,207	54,573	...
Oochain ...	Imports in mans...	29	...	...	...	...	...	...	...	90	...	...
	Exports in mans...	10,978	4,205	3,149	25	...	...	...	111	1,256	...	9,925
	Value of exports in Rs. ...	17,505	41,342	12,596	366	...	...	81,158	2,220	5,249	69,626	...
Biyana ...	Imports in mans...	3,760	1	...	13	...	...	...	...	29	...	...
	Exports in mans...	5,539	6,721	563	193	...	...	...	316	5,304	...	14,549
	Value of exports in Rs. ...	8,802	66,646	2,248	5,247	...	...	94,537	6,320	13,245	1,14,102	...
Bhusawar ...	Imports in mans...	3,015	3	20	62	...	...	...	4	232	...	...
	Exports in mans...	20,761	7,385	1,527	533	35,130	2,917	...	1,762	3,609	...	28,558
	Value of exports in Rs. ...	33,222	71,342	0,109	17,213	35,130	14,585	183,602	35,240	17,277	241,310	...

The details are too numerous to be shown in full but the totals are correct. In the case of Rupbas, Oochain, and Biyana the figures represent the average of the four years; 1896-1899, three of which were years of scarcity in which there was little surplus available for export, and the volume of trade was therefore abnormally small. In Bhusawar the average is struck for the period 1891-99 which includes fat as well as lean years, and the exports average nearly 2½ lakhs which is almost equal to that of the other three tahsils combined. The exports for the four tahsils have a value of over 5 lakhs per annum of which the most important in order of value are cotton, grain, oilseeds, ghi, zira, betel-leaf, live-stock and country cloth. The chief imports are raw and refined sugar, rice, wheat, foreign piece-goods. The customs duties for the whole tract average over Rs. 60,000 per annum, but though a source of considerable income to the State, they are a terrible drag on trade and harassing to the people. When the finances of the State recover sufficiently from their present depression the earliest opportunity should be taken to abolish export and import duties as has been done with such good results in the adjoining Alwar State.

Towns, Schools, Dispensaries.

86. The only towns of any importance which are centres of local trade are—

	Population.
Rupbas ...	1,987
Oochain ...	1,971
Biyana ...	8,085
Bhusawar ...	7,419
Weir ...	6,824
Ballabgarh ...	1,594

An account of these will be found in Lala Jawala Sahai's history of Bharatpur. Rupbas, Biyana and Weir are places of historical and antiquarian interest.

It has recently been proposed to break up the Oochain tahsil and transfer its villages to Rupbas, Biyana and Akhegarh with a sub-tahsil at Oochain, and also to transfer the headquarters of Bhusawar tahsil to the more suitable site at Weir, leaving a sub-tahsil at Bhusawar. These schemes have been sanctioned and will probably be carried out within the present year.

There are two dispensaries in Bhusawar, *viz.*, at Bhusawar and Weir, and one at the headquarters of each of the other three tahsils. Now that the post of Agency Surgeon has been re-established, an improvement in the hitherto slack and defective medical and sanitary administration may be confidently anticipated.

Schools are maintained by the State at the headquarters of each tahsil, as well as four or five in the larger villages, but education has been much neglected, and while the State in 1897-98 spent nearly 6 lakhs or about one-fourth of its income on the army, the education budget was only Rs. 26,000 or about one per cent. of the income.

The State by consenting to the introduction of British post-offices has put the postal arrangements on a sound footing and all these tahsils are now efficiently served.

87. The people of these tahsils are on the whole peaceful, frugal and industrious; more simple and truthful and less litigious than the Meos of the northern tahsils, so that the task of preparing a correct record of rights was a comparatively easy one. Given normal seasons and a reasonable *jama*, these tahsils, having a good clean soil and a large area of cultivation protected by sweet wells or benefitted by the annual floods, should be the most prosperous in the State, but for the last 18 years while the northern tahsils under a fairer *jama* have prospered considerably, these have deteriorated. The standard of comfort is probably lower now than it was 25 years ago. The people are as a whole indifferently housed, poorly clad, and their food if sufficient is generally of the inferior grains. Owing to the abundance of cattle milk is plentiful, but meat is consumed only by the Gujars, Rajputs, and Musalmans, while *ghi* though produced in large quantities is like the butter of the Irish or Normandy farmers looked on as a means of paying the revenue or rent rather than as an article of domestic consumption. The number of persons from the agricultural classes in the service of the State or of the British Government is not considerable as will appear from the following table:—

Tahsil.			Detail of service.	Number of persons.	Monthly income.	Total annual income.
Rupbas	...	{	State ...	122	Rs. 979	Rs. 18,600
			British ...	23	571	
Oochain	...	{	State ...	162	1,349	24,084
			British ...	57	658	
Biyana	...	{	State ...	213	1,576	30,708
			British ...	83	983	

These figures do not include the Saiyids of Paharsar in Oochain of whom many hold good positions in British territory and whose total income from service is said to be over Rs. 12,000 per month. The most prominent is Khan Bahadur Mir Aulad Hosain, C.I.E., late Settlement Officer in the Central Provinces.

## CHAPTER IV.

## PRICES.

88. The methods for ascertaining *bazar* and harvest prices described in the reports of the northern and central tahsils have been followed in these tahsils also. Appendix C shows the average (1) *bazar*, (2) harvest prices at the chief trade centres in each tahsil for (a) the 10 years 1880-81—1889-90 preceding the last settlement, (b) for the 9 years 1890-91—1898-99 preceding the new settlement. From these *data*, after comparison with the results arrived at in the rest of the State, I have fixed the following scale of commutation prices :—

Tahsil.	Cotton.	Rajra.	Jawar and Maize.	Moth Masha.	Til.	Wheat.	Barley.	Gram and Peas.	Oilseeds.	Bejar.	Gochal Gojra.
Rupbas ...	11	26	30	25	11	21	30	30	14	30	26 <sup>c</sup>
Oochain ...	11	26	30	25	11	21	30	30	14	30	26
Biyana ...	11	27	30	26	11	21	31	30	14	30	26
Bhusawar ...	11	27	30	26	11	21	30	30	14	30	26
Central Tahsils ...	11	26	30	25	11	21	29	30	14	30	...

It will be seen that in Rupbas and Oochain which are connected by good roads with the markets at Bharatpur, Achnera, and Agra, the rate of prices is practically the same as for the central tahsils and for certain food grains is a little higher than for Biyana and Bhusawar which are not so closely in touch with large markets. Compared with the average harvest prices of the last few years, the rates assumed may appear at first sight unduly favourable to the zamindars, but that period has been on the whole one of short harvests and high prices, and it is essential therefore to allow a considerable margin to cover fluctuations. As I write, the price of food grains at Bharatpur varies from 10 seers per rupee for wheat to 12½ seers for the coarser grains, but it cannot be argued that these famine-inflated prices are beneficial to the Zamindars the great majority of whom in a year of scarcity like this have to live largely on their credit with the grain-dealer, from whom they borrowed at these excessive rates and whom they repay at the cheaper harvest rates.

89. Comparing the average prices of the period preceding the last with those of the period preceding the present settlement, it appears that there has been no all-round enhancement, and similarly, if we compare the actual prices of recent years with those which are likely to prevail during the next twenty years, *i.e.*, the term of the new settlement, we cannot reckon with confidence upon any increase. In fact, the probability is that with the return of more favourable seasons prices will in the future tend to fall below the average of the last few years. It follows therefore that we cannot look to an increase in prices as one of the factors for enhancing the demand.

## CHAPTER V.

## CROPS AND OUTTURN.

90. In para. 50 the fluctuations in cultivation from year to year since 1890-91 have been shown, and details of the crops grown in each year are given in Statement II. The following table extracted from Statement II shows—(1) the area of cultivation and crops and the

Statistics of crops grown at and since last settlement.

proportion of the chief crops to the total crops area at (a) last settlement, (b) by the average of 6 years 1892-93—1897-98, (c) for the year 1898-99 on the results of which the new settlement is based, (d) for the year just closed, 1899-1900:—

Tahsil.	Period.	AREA OF—			PERCENTAGE OF DIFFERENT CROPS.																Percentage of Defaul.	
		Cultivation.	CROPS.			KHARIF.							RABI.									
			Total.	Kharif crops.	Rabi crops.	Cotton.	Bajra.	Jawar.	Masina.	Gawar charli.	Til.	Others.	Wheat.	Barley.	Gram.	Bejar.	Gochul.	Gojra.	Oliscada.	Others.		
Bapbas	1891-92 ...	51,545 {	61,015	26,301	37,744	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	41	59	6	21	5	2	5	1	1	11	8	12	12	4	3	2	4	24	
	1892-93-97-98	62,532 {	79,793	45,171	31,622	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	57	43	6	30	9	1	6	4	1	7	6	10	8	3	2	2	5	28	
	1898-99 ...	63,019 {	88,918	60,427	19,621	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	78	22	5	43	9	8	4	10	1	4	6	4	1	...	1	2	4	7	
1899-1900 ...	81,299	87,697	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7		
Oochaina	1891-92 ...	102,991 {	131,031	53,385	78,646	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	41	59	4	13	4	1	18	1	...	10	11	22	11	1	...	2	2	28	
	1892-93-97-98	99,805 {	114,259	60,058	54,171	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	53	47	5	29	7	2	16	2	1	9	12	10	9	2	...	2	3	15	
	1898-99 ...	123,593 {	133,140	82,220	50,920	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	62	38	4	28	7	12	6	4	1	8	11	4	6	2	2	2	3	8	
1899-1900 ...	115,361	123,399	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7		
Bijana	1891-92 ...	134,561 {	169,911	68,218	68,693	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	59	41	19	21	4	11	11	...	2	10	10	9	...	9	...	...	3	24	
	1892-93-97-98	127,657 {	153,207	98,259	51,918	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	64	36	10	25	5	21	2	1	...	9	11	7	...	5	...	...	4	20	
	1898-99 ...	142,069 {	160,343	117,528	42,515	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	73	27	9	31	6	19	5	2	1	7	10	3	...	2	...	1	4	13	
1899-1900 ...	142,042	159,676	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12		
Bhusawar	1891-92 ...	169,596 {	178,709	111,951	63,816	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	63	37	9	11	16	2	24	1	...	8	12	12	2	1	...	...	2	7	
	1892-93-97-98	162,765 {	177,864	120,232	57,632	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	68	32	8	16	19	3	29	1	1	7	12	8	1	...	...	...	4	9	
	1898-99 ...	170,378 {	170,596	132,177	47,419	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	74	26	5	27	16	18	5	2	1	5	11	5	...	1	...	...	4	5	
1899-1900 ...	171,682	150,697	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5		
Dallabgarh	1891-92 ...	19,740 {	21,622	15,499	6,123	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	72	28	17	11	3	1	49	...	...	9	11	5	...	...	...	3	...	9	
	1892-93-97-98	19,552 {	22,163	15,995	6,165	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	72	28	15	18	4	4	39	1	...	7	11	4	...	...	...	6	...	13	
	1898-99 ...	20,899 {	23,105	18,292	4,803	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			Per cent.	79	21	12	28	3	29	5	1	1	5	10	...	...	...	...	6	...	11	
1899-1900 ...	21,125	22,972	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9		

The chief deductions to be drawn from these figures are (1) the steady increase in cultivation which was not arrested except in Oochain even by last year's drought as the rains of 1899 were ample for sowings though insufficient to mature the crop, (2) a steady decrease in double-cropping owing to the increase in *barani* cultivation which is rarely double-cropped and the failure of water in the wells, (3) a very great decrease in the *rabi* area both absolutely and relatively to the *kharif*, and a corresponding increase in the *kharif*. This is explained by the failure of the autumn rains essential for *rabi barani* sowings, and the deficiency of well water. As these causes are only temporary, so the result may be regarded in the same light, and this must be borne in mind in noting the fluctuations in individual crops which will now be considered.

91. The area under cotton has increased in Rupbas, remained almost stationary in Oochain and Biyana, and fallen off in Bhusawar. A large proportion of

Leading kharif crops.

the cotton is *barani*, the cultivation of which depends on rains in May and June, and these have not been favourable in recent years. Moreover, the high prices of food grains have stimulated their growth at the expense of cotton, but the enormous rise in the price of cotton last year will, if maintained, soon counteract this tendency. The proportion of this crop to the total area varies from 4 per cent. in Oochain to 12 per cent. in Ballabgarh. It is the chief revenue-paying crop in the *kharif* as the exports (para. 85) show.

Bajra, on the other hand, is the staple *kharif* food crop. Its cultivation has increased enormously in recent years.

Bajra.

The area is now double that of last settlement, and it covers from 28 to 43 per cent. of the total crop area in the different tahsils the clean light soil of which is very well adapted to its growth. A small proportion of it is sown on *chahi* lands, and if rains are deficient, this gets a few waterings. *Bajra*, however, withstands a drought better than *jawar* and ripens quicker, so that it often makes way for a second crop in the *rabi*.

The cultivation of *jawar* has doubled in Oochain, more than doubled in Rupbas, increased considerably in Biyana

Jawar.

and remained stationary in Bhusawar. The proportion varies from 3 per cent. in Ballabgarh the very light soil of which is quite unsuited to it, to 16 per cent. in Bhusawar where it is very largely grown in Weir and the Trans-Banganga villages. It is also grown with success in the Wal of Rupbas, the Jatmai of Oochain, and the central portion of the Biyana Kather where the soil is stiff. It is even more exclusively a *barani* crop than *bajra* and is rarely grown on the well-lands.

The area under *mung*, *moth*, *chawila* and the various combinations of these crops with *jawar*, *bajra*, etc., (both forms

Masina.

are commonly called *masina*) has increased enormously on paper. Part of this increase is merely nominal, as at last settlement when these pulses were grown with cotton or the millets—*jawar* and *bajra*—they were classed under those heads or included with *gawar-charri*, and only the area grown separately was shown as *masina*. But there has been an undoubted genuine increase in the area owing to the extension of *barani* cultivation especially in the lighter soils which, when first broken up, are generally put under *masina*. The area now ranges from 6 per cent. of the total in Rupbas to 29 per cent. in Ballabgarh. The crop is rarely if ever an irrigated one. The outturn of grain is generally poor, as the crop is very sensitive to drought or high winds, and is also damaged by heavy rains but even when the grain fails the fodder is valuable.

The chief *kharif* fodder crop is however *gawar-charri*. The area shows an extraordinary falling off in all tahsils

Gawar-charri.

but Rupbas, the reason being that at last settlement *masina* was generally included with it, and partly perhaps that the people now prefer to sow crops which furnish grain as well as fodder. In dry years a good deal of the *charri* is grown on the wells in the hot months so as to furnish fodder for the well and plough cattle till the rains have set in.

The area under *til* shows a very marked increase in all tahsils, but above all in Rupbas and Oochain. One explanation is that the sandy land along the

Til.

former channels of the Banganga east of Farsu is peculiarly suited for this crop which however could not be sown with confidence while the land was exposed to inundations which it no longer is. In this locality I have met with crops of *til* surpassing any that I have ever seen. The crop requires only a moderate rainfall and is a very paying one. Hence its cultivation is yearly becoming more popular. The area under it varies from 2 per cent. of the whole in Bhusawar to no less than 10 per cent. in Rupbas.

Other *kharif* crops, such as hemp, tobacco, sugarcane, have increased in all tahsils but Biyana, but the area under them in no case exceeds one per cent.

Other kharif crops.

Sugarcane in small quantities is grown over all these tahsils. In Rudawal the area was considerable, but the wells in that tract have suffered very severely from the drought and cane cultivation has in consequence fallen off. Irriga-

tion from the Barata *band* will give a stimulus to it in villages which are commanded by the ducts.

92. The *rabi* crop area as compared with last settlement has fallen off by from 30 to 50 per cent. for reasons already explained, and these reasons apply also to individual crops.

Chief *rabi* crops.

The area under wheat is now from 60 to 25 per cent. less than 10 years ago, and the reason is of course the reduced irrigating power of the wells. The area varies from 4 per cent. of the whole in Rupbas to 8 per cent. in Oochain. Wheat requires more waterings than barley, ripens later and is therefore more liable to damage from high winds, rust (*kungi*), smut (*kangiari*), and white ants. The outturn too is less than that of barley, and as the latter is the general food grain in the summer months, its cultivation is more popular.

Wheat.

The area under barley is practically unchanged except in Bhusawar where it shows a slight contraction, but the proportion to the total area has fallen off in all tahsils, and now varies from 6 per cent. in Rupbas to 10 per cent. in Oochain; like wheat it is generally manured and sown either on wells or on flooded lands.

Barley.

Gram was formerly the staple *barani* crop in the *rabi*, and at last settlement occupied from 12 to 22 per cent. of the crop area in each tahsil. Its cultivation has steadily declined since 1895 owing to the frequent failure of autumn and winter rains, and in 1898-99 the area under it was only from 3 to 4 per cent. It is grown on the superior *barani* and on the inundated lands and the failure of the *bands* to fill in recent years is also accountable for the falling-off.

Gram.

The above remarks reveal a lamentable contraction in the chief *rabi* crops irrigated and unirrigated. If we take account of the various combinations of wheat, barley, and gram—*bejar*, *gochni*, *gojra*—sown as mixed crops, the decrease is even more marked. At last settlement these together made up 19 per cent. of the crops in Rupbas, 12 per cent. in Oochain, 9 per cent. in Biyana, and 3 per cent. in Bhusawar, whereas this proportion is now reduced to 2 per cent. in Rupbas, 10 per cent. in Oochain (where the development of irrigation has increased the area), 2 per cent. in Biyana, and 1 per cent. in Bhusawar. Of these crops *bejar* (barley and gram) is grown on *barani*, *sairaba* or *khatili* lands, while *gochni* (wheat and gram) and *gojra* (wheat and barley) are confined to wells or the best inundated soils.

Bejar, gochni, gojra.

The area of *rabi* oilseeds (*sarson* and *tara-mira*), though relatively small, shows a steady increase in all tahsils, but the proportion to the whole area nowhere exceeds 2 per cent.

Oilseeds.

Other *rabi* crops cover 3 per cent. of the area in Oochain and 4 per cent. in the other tahsils. The most important is *sira* or eumin seed, which comes to from 2 to 3 per cent. of the crop area in all tahsils, leaving only 1 to 2 per cent. for miscellaneous crops.

Miscellaneous kharif and *rabi* crops.

93. The detail of miscellaneous crops in *kharif* and *rabi* is in *bighas* :—

Tahsils.	KHARIF.					RABI.							Total.
	Tobacco.	Cum.	Vegetables.	Carrots.	Others.	Tobacco.	Poppy.	Vegetables.	Carrots.	Pas.	Miscellaneous.	Sira.	
Rupbas ...	162	35	106	2	479	85	...	83	91	53	1,039	2,168	4,358
Oochain ...	41	160	259	19	587	250	...	331	76	675	216	1,730	4,344
Biyana ...	53	163	393	19	936	214	29	418	165	492	250	4,083	7,120
Bhusawar ...	65	5	235	532	972	529	38	263	416	...	1,032	3,757	7,944
Dallabagarh ...	2	..	21	5	213	53	137	48	164	...	...	829	1,472

Of these crops the most valuable are tobacco, cane, and poppy. In estimating the value of the produce I have, after local enquiry, put their value per *bigha* as follows :—

					Rs.	Rs.
Tobacco	...	...	...	...	... 30	
Sugarcane	...	...	...	...	... 20 and in Biyana 30	
Poppy	...	...	...	...	... 20	
Zira	..	...	...	...	... 15 and in Rupbas 12	
Vegetables	...	...	...	...	... 12	
Others	...	...	...	...	... 10	

These rates are almost the same as for the central tahsils.

94. As an aid to determining the average outturn of the remaining crops, produce experiments have been steadily made in these tahsils since 1897-98 by the tahsil and settlement establishment under the supervision of Mr. Pyster, Assistant Settlement Commissioner, who personally carried out a considerable number. During my cold weather tour I had no less than 58 experiments made under my own observation, *i.e.*, I selected the field, left a reliable official to have the usual area ( $\frac{1}{10}$  of an acre) cut and brought into my camp where a sample of the grain was kept to be weighed when dried. The total number of experiments carried out in each tahsil was—

Tahsil.	Cotton.	Jowar.	Pajra.	Til.	Cane.	Maize.	Maize.	Wheat.	Barley.	Gram.	Peas.	Gochni Gajra.	Sarson.	Total.
Rupbas	...	16	21	10	...	...	...	33	30	5	10	3	11	170
Gochain	...	5	15	29	8	...	...	31	68	14	13	2	13	201
Biyana	...	3	5	3	...	1	...	24	32	5	...	...	5	77
Bhucawar	...	10	14	61	2	...	10	43	50	15	1	2	6	211
Total	...	17	52	100	20	3	10	139	195	42	21	7	35	660

Thus 660 experiments in all were made during the last three years. The average results of these experiments for each class of soil are shown in Appendix B. Of the 6 harvests under observation, only two, *viz.*, 1897-98, were normal in character, and the average outturn therefore, though based on so large a number of actual experiments, cannot be blindly assumed as representative of the actual outturn over a series of years. Fortunately each year has increased the data for framing a reliable estimate, and we are now in a position to fix average rates of yield with more confidence than was possible when the operations began.

95. After careful consideration of the results obtained by actual experiments, enquiry from Zamindars and tahsil officials, discussion with the Deputy Collectors and comparison with adjoining tahsils in Bharatpur, Alwar, and Agra, I have assumed the following rates of yield per *bigha* for the different classes of soil or rather for the different classes of crops—for the outturn depends chiefly not on the classification of the soil but on the conditions under which the crop is actually grown, *i.e.*, on the absence or presence of natural or artificial irrigation.



Soils.	Tahsil.	Kharif.						Rabi.						Bawa
		Cotton.	Bajra.	Jawar.	Maize.	Muslin.	Til.	Wheat.	Barley.	Gram and peas.	Dejar.	Gochl.	Gojra.	
Chahi-hal	Rupbas ...	3½	5	4	4	2½	2½	7½	8	7	8½	7½	8	2
	Oochain ...	3½	5	4	4	2½	2½	7½	8½	7	8½	7½	8	2
	Bijana ...	3½	5	4	6	2½	2½	7½	8½	7	8½	8	8	2
	Bhusawar ...	3½	5	4	...	2½	2½	7½	9	7	8	7½	8	2
Chahi-Sahika	Rupbas ...	2½	4	4	4	2½	2	4½	4½	3	3	3	3	1
	Oochain ...	2	4	4	4	2½	2	4½	4½	3	3	...	3	1
	Bijana ...	2	4	4	4	2½	2	4½	4½	3	3	3	3	1
	Bhusawar ...	2	4	4	...	2½	2	4½	4½	3	...	...	...	1
Chahi-Sairaba-hal	Rupbas ...	...	...	...	...	...	...	8	9	7	8½	8	9	2
	Oochain ...	3½	5	4	4	2½	2½	8½	9½	7	8½	8	9	2
	Bijana ...	3½	5	...	6	2½	...	9½	11	7½	9	8½	8½	2
	Bhusawar ...	3½	5	4	...	2½	2½	8	9	7	8½	8	9	2
Sairaba-hal with Chahi-Sahika and Sairaba-hal.	Rupbas ...	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Oochain ...	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Bijana ...	2½	4	3	3	2½	2½	4½	5	5	5	5	5	2
	Bhusawar ...	2½	4	4	...	2½	2½	4½	5	5	5	5	5	2
Khatili	Rupbas ...	...	...	...	...	...	...	4½	5	...	...	...	2	2
	Oochain ...	...	...	...	...	...	...	4½	5	...	5	...	5	2
	Bijana ...	...	...	...	...	...	...	6	8	5	7	...	7	2
	Bhusawar ...	...	...	As for Sairaba.	...	...	...	...	...	...	...	...	...	...
Sairaba-Sahika	Rupbas ...	2	3	3	3	2½	2	4½	4	3	3	4	...	2
	Oochain ...	2	3	3	3	2½	2	...	4	3½	3	...	...	2
	Bijana ...	2½	4½	3	3	2½	2	4½	4	3½	3	3	...	2
	Bhusawar ...	2	2½	3	2½	...	2	3	4	3	...	...	...	...
Darishi	Rupbas ...	...	2½	3	3	...	2	3½	4	3	3	...	...	2
	Oochain ...	2	3	3	3	2½	2	8½	4	3½	...	...	3	2
	Bijana ...	2	3	3	3	2½	2	4	4½	8½	3	...	...	2
	Bhusawar ...	...	...	Same as Sairaba-sahika.	...	...	...	...	...	...	...	...	...	...
Darani	Rupbas ...	2	2½	2½	2½	2	2	3	4	3	3	3	3	1½
	Oochain ...	2	2½	3	3	2½	2	...	4	3	3	3	...	1½
	Bijana ...	2	2	3	3	2½	2	3	4	3	3	3	8	1½
	Bhusawar ...	2	2½	3	2½	...	2	...	4	3	3	...	...	...
Dhar-Darani	Rupbas ...	1½	2	2½	2½	1½	2	2	3	2	2	...	...	1
	Oochain ...	1½	2	2½	2½	1½	2	2	...	2	...	...	...	...
	Bijana ...	1½	1½	2½	2½	1½	2	1½	...	2	1½	1½	...	1
	Bhusawar ...	1½	2	2	1½	...	1½	...	...	...	...	...	...	...

As regards *chahi* and *chahi-sairaba*, there is little difference in the outturn, but that of *Bijana* and *Bhusawar* is slightly superior to the other two tahsils especially as regards the *rabi* crops, and a higher rate of yield has in consequence been brought out by the actual experiments and is now assumed. For *chahi-sabika* the yield is practically the same in all tahsils. For *sairaba-hal* too there is little difference in the yield except in the case of *jauar* which is better in *Bhusawar* than elsewhere. Similarly the *khatili* land

Thus, if the figures can be relied upon, Rs. 15,422 arrears prior to 1890, have been remitted, and arrears since 1890 amount to Rs. 13,605, of which the sums due for ' *Dauran Mokaddami*' (i.e., pending sanction to the succession the State claimed the income) viz, Re. 1 in Rupbas, Rs. 32 in Oochain, Rs. 40 in Biyana and Rs. 468 in Bhusawar, should certainly be remitted. Arrangements for the realisation of the rest will be made after reference to the Political Agent and Council.

133. Besides the *Hakk Mokaddami* allowed by the State as a percentage on Nankar and Chhut allowances in the *jama*, the *lambardars* and in some Khalsa villages. cases the whole proprietary body in certain villages receive small grants from the State known as *Nankar* and *Chhut*, i.e., a reduction on the revenue. The number of estates and the total amount so allotted in each tahsil is as follows:—

Detail.	Rupbas.	Oochain.	Biyana.	Bhusawar.	Total.	Total for the State.
Number of estates ...	1	50	22	34	107	169
Amount ...	30	834	766	947	2,577	4,874

In the southern tahsils Rs. 2,577 is paid to 107 villages and in the whole State Rs. 4,874 to 169 villages, and this does not include about Rs. 1,000 paid to Chaudhris in the northern tahsils.

Originally these payments were probably a form of remuneration to influential zamindars for helping to collect the revenue; in others an addition to the *Hakk Mokaddami*. The original intentions have now been lost sight of and the State gets no return for this large expenditure. In some cases it takes the form of a percentage on the revenue, but usually it is a fixed sum. In some villages only the *lambardars* receive it; in others it is shared by all the owners.

134. As suggested in paragraph 181 of my report on the northern tahsils, I think this sum, which is now frittered away among several hundred persons, none of whom derives any substantial benefit from it, might be utilised to remunerate *Chaudhris* to be appointed in each tahsil in the same way as *Zaildars* in the Punjab. I therefore propose that in future these payments to bodies of *lambardars* or whole villages should cease, unless where there is a very special reason for retaining them, and that in their stead the State allow 2 per cent. of the *jama* in each tahsil (excluding Gopalgarh and Pahari where there are already well-paid *Chaudhris*) to remunerate *Chaudhris*, who will be appointed from among the most prominent zamindars with due regard to tribe and local influence at the close of the settlement and whose duties will be similar to those of *zaildars* in the Punjab.

The State would gain financially by this proposal as 2 per cent. on the new revenue excluding Gopalgarh and Pahari, would be about Rs. 3,300, while the present expenditure is Rs. 4,874. From the fund so formed *inams* averaging Rs. 100 per annum could be given to from two to four selected men in each tahsil according to its size. The gain to the administration—revenue, police, etc.,—if good men are selected and the system properly worked, will be considerable. What is at present most needed in Bharatpur is to raise the status of the zamindars, and promote the growth of the sturdy yeoman class, which is found so useful in the Panjab as an intermediary between the Government and the people. There is abundance of good material in the State, but the policy in the past has been to regard the zamindar as a cow to be milked dry, or as a sponge to be squeezed, and no steps have ever been taken to raise their position. The result is that nothing is done by the agricultural body to assist the administration. The tahsil chuprassi and the Patwari have to be requisitioned for

the most ordinary duties and the collection of the revenue is left almost entirely in their hands.

135. In this as in previous reports I have confined myself to only one branch of the settlement, *viz.*, the assessment and cognate matters. In Bharatpur, however, which has hitherto had no record of rights, the preparation of a correct record and the organisation of an establishment to maintain it are of primary importance. These objects have been steadily kept in view since the beginning of the settlement, and the progress made has been noted in my annual reports on the working of the settlement to the Political Agent and Council. The matter will be dealt with more fully in the Final Report which I hope to write before closing the operations, but I may here note briefly some of the chief measures carried out or under consideration.

(1) All questions connected with proprietary and tenancy rights, revenue liability, shares, rights in wells and irrigation, claims of deserting and absconded owners to recover, disputes between *masfidars* and zamindars, have now been enquired into and finally disposed of, and the results have been incorporated in the new record.

To illustrate the labour involved in even one branch, I need merely state that up to September 1899 over 16,000 cases relating to tenant right were disposed of by the Circle Officers, while 2,944 cases relating to proprietary right and 3,739 other cases have been enquired into and adjudicated upon by them. My own work, apart from village inspection and assessment, consisted of 163 judicial and 13 *masfi* cases, 99 appeals and 4,139 miscellaneous cases.

(2) The general enquiry into revenue free tenures is being made for the first time under rules framed by the Political Agent and Council. Up to date 427 cases have been investigated, but pressure of other work has retarded their disposal.

(3) The Patwari Agency has been thoroughly re-organised; the number which was excessive has been reduced by the weeding out of old and inefficient men; the circles re-arranged and the pay improved. Formerly the average pay was Rs. 7-8-0 per month. Four grades have now been formed, the pay being Rs. 8, 9, 10 and 11 per month, which will compare favourably with the pay in any Native State and enable us to secure better men.

(4) The Kanungo Agency has at the same time been re-organised. Formerly there was one Field and one Office Kanungo in each tahsil and their pay averaged Rs. 10 only per month. The scale now fixed is one Office Kanungo—and in Bharatpur and Dig two—at Rs. 20 per month and two Field Kanungos paid Rs. 20 and Rs. 25. This reform has stimulated the old Kanungos to qualify themselves and all have now undergone a thorough course of training in the settlement; while for the new posts the most capable men have been selected from the settlement and in a few cases Patwaris have been promoted.

(5) The Naib Tahsildars throughout the State are being put through a six months course of training in settlement, half at a time.

(6) To strengthen the revenue supervising agency it has been proposed that the services of M. Hira Singh, Settlement Deputy Collector, be lent to the State for five years as Revenue Deputy Collector.

136. In carrying out these reforms and in pushing on the settlement generally I have received the hearty co-operation of the State Council, and in particular of Rai Bahadar M. Sohan Lal to whose initiative many of them are due, and whose knowledge of and interest in settlement matters have immensely facilitated the prompt disposal of the many questions in which reference to the Council was necessary. I have to thank the Political Agent, Lieut.-Col Herbert, who has been in charge of the Bharatpur administration since 1897, for the cordial support he has afforded to me throughout, which has enabled me to carry on the work without friction and without

exciting local opposition. Given a good start, i.e., favourable harvests for a few years, to enable the people to recover, and a vigilant and sympathetic revenue administration in the future, I am hopeful that the settlement will mark the return of an era of prosperity to the State and the people; not because I claim any special merit for the settlement itself, which has been rather roughly and hurriedly carried out, but because any settlement which secures a fair and well-distributed assessment and an accurate record of rights must be an immense improvement on the chaos which has hitherto reigned.

The cost of the settlement operations up to 30th June 1900 has been Rs. 2,44,626-10-9, and the operations will be completed at a cost of less than 3¼ lakhs, which, considering the size of the State and the revenue involved, nearly 24 lakhs, is not excessive.

The statements and appendices attached to this report are in the same forms as those submitted with previous reports (see paragraph 130 of report in central tahsils), 1898-99 taking the 1897-98 as the year of attestation. For all practical purposes the summary given in the text is sufficient.

Points on which orders are required.

137. The main points on which orders are now required are—

(1) The proposal as to the remission and collection of the arrears since 1890 (paragraphs 52 and 59A).

(2) The abolition of miscellaneous cesses (110).

(3) The principles laid down for the assessment of *sairaba* land generally (116) and their application to these tahsils (117).

(4) The rates and assessment now proposed (125 and 121).

(5) Subsidiary matters connected with the assessment, viz., the taxation of mango and other fruit trees (80), the arrangements for the leasing of culturable waste (74) and for simplifying and reducing the taxation on the betel leaf (79).

(6) The fixing of the term of settlement (121), rates of *malba* (112) as in the northern tahsils, and the alteration of the dates of the revenue instalments (127).

(7) The abolition of the *Nankar* and *Chhut* payments and the creation of a fund for the remuneration of Chaudhris to be appointed in each tahsil (134).

138. This report completes the proposals for the reassessment of Bharatpur,

and before closing it I must put on record the valuable aid I have received through all stages of the work from my three Assistants. Munshi Hira Singh has been in direct charge of the operations in five out of the present eleven tahsils. His thorough knowledge of the Punjab revenue system enabled him to readily grasp local conditions in Bharatpur. I have throughout relied much on his judgment and advice, and have never found them at fault. The credit of the speedy and I hope satisfactory termination of the settlement is largely due to him. Munshi Mahmud Hosain, the State Deputy Collector, in addition to his own duties, was in charge of the settlement work of three tahsils, and his previous experience as a settlement official enabled him to bring it to a satisfactory issue. Mr. A. H. Pyster is an officer whose services my predecessor obtained from the Bengal Survey. Although he had little previous knowledge of assessment, he has by hard work and perseverance got a good grasp of the subject and has furnished me with a very useful report on the three tahsils in his charge. He has received much help from his Assistant, Lala Gurdial, an official borrowed from the Mooltan Settlement who has shown exceptional capacity and power of work. Of the Sadar Munsarims in these tahsils, Amrik Rai and Gurdit Singh have both done well.

In order to wind up the operations during the coming cold weather it is essential that the assessment should be announced in August so as to be distri-

buted and brought into working from the coming *kharif* harvest. I hope therefore I shall not be considered importunate if I ask the favour of very early orders on this report. Lengthy though it is, the proposals are on all fours with those already sanctioned for the northern and central tahsils. No new principle is involved, and it will therefore be possible, I hope, to obtain orders within the time desired.

SIMLA;  
The 12th July 1900. }

(Sd.) M. F. O'DWYER, I.C.S.,  
Settlement Commissioner, Alwar-Bharatpur.

---

TAHSIL RUPBAS.

---

TAHSIL RUPBAS.

No. 1.—Area Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
Period.	Total area.	UNCULTURABLE.						Culturable waste.	Total uncultivated.	Other unassessed State property.	New fallow.	CHAHIL.			GARI SARADA.			Chahi Nabri.	NABRI.		SARADA.						
		STATE PROPERTIES.			UNCULTURABLE.							Permanent.	Former.	Temporary present.	Present.	Chahi former, sariba present.	Temporary chahi and sariba present.		Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Total.
		Land.	Baul.	Hills.	Others.																						
Last settlement ...	1,77,700	7,011	...	12,861	11,094	86,869	69,865	...	89,300	11,727	9,657	...	...	...	...	...	...	...	...	13,124	...	...	...	13,124			
Sambat 1915=1893-99	1,70,452	7,001	...	13,760	9,273	67,440	67,463	360	15,701	6,743	4,031	1,630	1,255	190	110	...	...	...	...	4,073	11,401	230	273	10,595			
Difference.	1,679	10	...	...	1,621	...	...	...	33,609	4,979	...	...	...	...	...	...	...	...	...	8,163	...	...	...	...			
Increase	...	...	...	903	...	1,651	923	350	...	...	...	1,031	1,630	1,255	190	110	...	...	...	...	11,401	260	273	9,771			
Sambat 1916=1900-1900	1,70,023	7,001	...	13,760	9,001	53,927	62,758	350	11,470	6,600	3,550	4,333	2,603	140	1,093	...	...	...	...	7,793	7,133	108	403	15,525			

TAHSIL, RUPBAS.

No. 1 Area Statement—contd.

1	2	20	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
Details.	Period.	BARANI.			Total cultivated.	GARDENS.			WELLS.								DRAINAGE.		DEPTH.				Remarks.		
		Barani.	Bhur Barani.	Total.		Chahi.	Sairaba.	Barani.	Masonry.				Kham.				Present.	Temporary.	To water.	To water.	To water.	To water.			
									No.	Last.	No.	Last.	No.	Last.	No.	Last.									
																								Working.	Not working.
	Last settlement ...	22,503	616	23,107	51,616	...	...	...	271	670	...	...	...	71	...	71	...	...	...	...	11	14	12	9	
	Bambal 1935-1899-00 ...	43,629	8,140	51,068	83,041	8	...	...	210	610	145	813	204	...	281	...	...	...	25	23	0	10	0		
	Difference.	...	...	...	...	...	...	...	28	363	...	117	...	...	...	...	...	...	...	...	5	...	...	...	
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Increase ...	10,038	7,025	29,501	31,400	8	...	...	...	...	145	...	103	...	103	...	...	...	21	8	...	4	...	...	
	Bambal 1935-1502-1950 ...	42,711	7,386	50,070	81,091	8	...	...	230	650	128	855	407	...	407	...	...	...	2	...	...	...	...	...	



TAHSIL RUPBAS.

No. 1—Area Statement—contd.

Period.	2	3	UNCULTURABLE.					8	9	10	11	CHAHIL.			CHAHIL SAIRABA.			NAHRI.		SAIRABA.					26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			STATE RESERVES.		UNCULTURABLE.							Permanent.	Former.	Temporary present.	Present.	Chahi former sairaba present.	Temporary chahi and sairaba present.	Chahi Nahri.	Present.	Former.	Present.	Former.	Barahat.	Khatuli.		Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			Rand.	Bani.	Hills.	Others.	Culturable waste.																				Total uncultivated.	Other unassessed State property.	New follow.	Present.	Former.	Temporary present.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Last settlement ...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

## No. 1—Area Statement—contd.

B-30

TAHSIL RUPBAS.

No. 1—Area Statement—concl.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
			UNCULTURABLE.								CHANIL.			CHANI SAHARA.					NAHIL.		SAHARA.				
Period.	Total area.	Roud.	STATE PRESERVED.		UNCULTURABLE.		Culturable waste.	Total uncultivated.	Other unassessed State property.	New fallow.	CHANIL.			CHANI SAHARA.			Chabi Nahil.	Present.	Former.	Present.	Former.	Present.	Former.	Total.	
			Roud.	Daul.	Hills.	Others.					Permanent.	Former.	Temporary present.	Present.	Chabi former sahara present.	Temporary chabi and sahara present.									
Last settlement ..	1,83,552	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sambat 1935=1938-03	1,83,311	7,001	..	..	13,810	9,671	69,561	416	6,772	7,206	4,800	1,566	1,312	201	110	..	..	..	..	6,825	11,632	260	272	17,679	
Difference.	Decrease ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sambat 1930=1932-1900	1,82,811	7,001	..	..	13,810	9,160	61,000	416	11,811	7,212	3,687	2,376	2,050	163	1,133	..	..	..	..	8,637	7,203	108	643	10,611	

TAHSIL RUPBAS.

No. 1—Area Statement—concl.

TAHSIL RUPBAS.

No. 1--Area Statement--concl.

1	2	26	27	29	29	30	81	32	33	34	35	36	37	38	39	40	41	42	43	43	44	45	46	47	49
Details.	Period.	Barani.			Total cultivated.	Gardens.			Wells.							Drawings.		Depth.				Remarks.			
		Barani.	Dhar Barani.	Total.		Chabl.	Salraba.	Barani.	Masonry.		Kham.		No.	Zach.	Present.	Temporary.	Masonry.		Kham.						
									No.	Zach.	No.	Zach.					To water.	Of water.	To water.	Of water.					
																					Working.		Not working.	Working.	Not working.
	Last settlement ...	...	...	...	...	...	...	...	231	696	...	901	...	71	...	...	...	...	17	...	...	...	...	...	...
	Sambat 1935=1909-00	41,803	8,630	53,433	80,661	8	...	...	257	670	147	867	222	261	...	201	...	2	30	...	...	...	...	...	...
Difference.		...	...	...	...	...	...	...	21	29	...	107	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	147	...	222	190	...	100	...	2	22	...	...	...	...	...
	Sam at 1900=1909-1000	43,901	7,718	51,619	86,327	8	...	...	239	711	130	900	205	410	...	410	...	3	100	...	...	...	...	...	...
Totals.																									

TAHSIL RUPBAS.

No. 2—Crop Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
CHANNI.																											
Partic.	Kharif.							Rabi.							Kharif.												
	Cotton.	Barley.	Jawar.	Masina.	Gawar Charri.	Til.	Others.	Total.	Wheat.	Barley.	Wheat and Gram.	Barley and Gram.	Wheat and Barley.	Others.	Total.	Total of Chahi.	Cotton.	Barley.	Jawar.	Masina.	Gawar Charri.	Til.	Others.	Total.			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Sambat 1916=1921-03	1,740	...	...	...	...	...	243	1,971	4,405	3,651	...	...	...	...	...	...	1,008	9,760	11,727	233	2,168	431	21	288	62	81	3,297
Sambat 1916=1922-03	1,681	...	...	...	...	...	386	2,063	4,303	2,650	...	...	...	...	...	...	1,312	8,457	10,753	107	1,920	1,009	60	821	116	113	2,820
Sambat 1920=1923-01	2,816	...	...	...	...	...	551	3,360	4,023	2,800	...	...	...	...	...	...	3,920	11,460	14,868	610	930	1,607	10	260	250	73	3,203
Sambat 1931=1934-03	410	...	...	...	...	...	603	919	2,710	2,040	...	...	...	...	...	...	4,377	9,232	10,189	535	791	135	...	212	317	70	2,039
Sambat 1941=1945-09	1,837	...	...	...	...	...	805	2,972	2,893	5,110	...	...	...	...	...	...	3,748	12,177	15,519	169	1,723	673	37	210	473	60	3,305
Sambat 1953=1960-07	2,678	...	...	...	...	...	273	3,051	1,800	7,015	...	...	...	...	...	...	2,507	12,093	15,731	392	3,607	819	21	331	401	66	5,601
Sambat 1961=1967-03	1,189	...	...	...	...	...	322	1,510	2,803	4,271	...	...	...	...	...	...	2,070	10,000	12,110	205	7,680	1,260	28	108	322	95	9,713
Six year's average	1,812	...	...	...	...	...	405	2,307	3,293	4,013	...	...	...	...	...	...	3,337	10,775	13,982	368	3,660	817	20	207	32	71	4,150
Khalsa 1945=1949-02	457	12	7	8	1	23	325	833	1,893	3,353	109	26	13	431	210	2,950	9,917	9,850	37	622	50	0	0	0	81	48	851
Maif 1945=1949-02	2	1	...	...	...	...	10	23	157	108	...	12	...	...	...	...	180	537	560	...	23	7	...	...	20	...	49
Khalsa 1950=1953-03	623	1,927	160	20	10	115	838	2,608	2,427	9,123	148	...	...	...	...	...	1,740	11,310	13,761	101	1,010	407	47	131	982	74	2,050
Maif 1950=1953-03	2	84	4	2	1	7	91	101	135	331	...	...	...	...	...	...	32	591	785	12	45	46	7	13	12	4	138

## TAHSIL RUPBAS.

## No. 2.—Crop Statement—contd.

SAIRADA.										BARANI.																				
28	29	30	31	32	33	34	35	36	37	Kharif.							Rabi.													
Details.										Wheat and Gram.							Wheat and Barley.							Total.						
Wheat.	Barley.	Gram.	Barley and Gram.	Wheat and Gram.	Wheat and Barley.	Oilseeds.	Others.	Total.	Total of Sairada.	Cotton.	Bajra.	Juar.	Mashin.	Gawar Churli.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Bajra (Barley and Gram.)	Goehni (Wheat and Gram.)	Goira (Wheat and Barley).	Oil-seeds.	Others.	Total.	Total of Barani.			
Sambhat 1919=1921-02	3,733	830	1,140	3,303	1,040	903	1,010	13,068	10,365	1,876	11,045	3,020	1,318	3,144	553	82	21,043	012	077	0,451	4,535	023	423	807	307	14,010	35,062			
Sambhat 1919=1922-03	2,591	302	1,020	3,133	650	150	719	0,000	12,622	1,500	12,821	4,410	1,181	5,031	1,444	110	20,580	452	168	8,125	2,138	408	307	042	352	12,710	30,308			
Sambhat 1920=1923-04	3,000	247	1,470	2,801	980	1,010	531	0,800	13,119	2,351	13,670	5,500	600	4,804	2,850	102	30,141	100	101	8,091	3,059	1,453	12	1,301	311	15,843	40,291			
Sambhat 1921=1924-05	5,035	907	1,436	2,320	1,881	250	900	22,511	21,580	7,478	13,081	5,151	470	4,080	4,401	00	30,030	757	273	8,320	2,757	1,701	283	1,303	780	17,360	53,980			
Sambhat 1922=1925-06	983	921	910	1,750	431	201	402	5,012	8,017	1,000	17,807	0,127	1,059	5,337	3,137	133	38,769	770	02	2,510	1,558	137	8	180	313	5,871	41,313			
Sambhat 1923=1926-07	1,10	715	231	275	11	05	145	1,045	7,230	2,317	27,007	7,880	313	5,580	3,220	13	47,305	5	21	22	609	81	...	21	1	702	48,067			
Sambhat 1924=1927-08	1,007	1,211	1,307	3,010	2,521	405	758	12,918	23,531	935	30,022	4,804	333	3,254	2,138	112	51,330	237	780	0,028	5,461	3,325	1,203	3,575	810	25,481	70,811			
Six year's average	2,300	602	1,073	2,713	1,103	730	510	10,360	14,810	2,701	31,012	6,020	623	4,820	2,017	111	38,110	403	235	0,273	3,300	1,214	302	1,313	415	13,481	51,807			
Khales	1,503	1,104	933	301	171	501	131	6,102	0,010	2,800	37,050	7,815	5,033	3,006	0,010	410	07,740	103	400	2,365	302	77	13	1,422	481	5,312	73,033			
Nad	702	41	...	49	10	6	...	817	803	185	1,110	113	190	200	330	0	2,212	8	8	103	13	4	40	13	...	181	2,300			
Khales	010	1,802	2,106	...	...	...	520	0,311	8,000	3,555	33,178	4,009	5,121	4,024	10,002	1,845	03,501	6	101	93	...	...	...	203	064	1,140	05,043			
Nad	521	129	39	...	...	...	65	750	018	00	603	107	210	106	463	10	2,053	1	1	1	...	...	...	...	1	4	2,047			

**TAKSIL RUPBAS.**

No. 2.—~~Crop Statement~~—concl.

1	28	27	23	29	30	01	02	03	04	05	06	07	08	09	70	71	72	73	74	75	76	77	78			
GRAND TOTAL.																										
Details.	Kharif.												Rabi.												Total of both crops.	
	Cotton.	Bajra.	Jawar.	Masina.	Gauar Chaul.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Peas (Barley and Gram.)	Goehni (Wheat and Gram.)	Goira (Wheat and Barley.)	Olseeds.	Others.	Total.									
Sambhat 1919=1921-03	3,837	13,213	3,157	1,313	3,132	615	405	20,301	8,810	5,378	7,597	7,053	2,203	1,897	1,303	2,173	37,744	64,016	12,500	61,515	11,727	13,121	20,081			
Sambhat 1920=1892-93	3,478	13,821	6,119	1,231	5,403	1,500	617	31,031	7,017	3,100	9,759	7,979	1,178	874	619	2,479	33,003	65,223	14,411	50,810	10,703	8,082	31,081			
Sambhat 1921=1893-94	5,818	11,012	6,597	1,615	6,103	3,100	7	37,103	6,828	3,020	10,187	9,142	2,439	1,707	1,770	4,605	37,178	74,250	14,177	60,103	11,603	12,270	32,065			
Sambhat 1931=1894-05	8,140	14,035	5,059	426	4,031	4,718	078	39,010	0,402	329	14,553	8,142	1,121	2,229	1,092	5,717	49,139	88,155	20,608	67,557	10,181	10,057	40,989			
Sambhat 1932=1895-06	4,033	10,020	9,700	1,120	5,027	4,510	1,023	44,740	4,030	5,703	3,402	3,301	571	959	375	4,553	23,413	68,160	11,403	56,760	11,819	8,502	33,405			
Sambhat 1933=1896-07	5,387	31,531	8,603	334	5,023	3,630	411	55,047	2,011	8,361	213	983	92	974	00	2,413	16,093	71,040	0,383	01,652	14,828	0,807	30,000			
Sambhat 1934=1897-08	2,329	47,603	5,673	361	2,183	2,771	631	62,653	4,016	6,271	11,265	9,757	5,856	1,002	4,607	4,271	40,308	111,861	33,255	78,606	12,110	15,820	50,070			
Six years' average	4,031	23,031	5,810	204	5,053	3,221	695	45,171	5,012	4,070	8,245	9,109	2,377	1,361	1,636	4,632	34,022	79,793	17,201	64,592	12,032	11,421	38,179			
Kharif	4,300	33,520	7,910	5,055	3,705	10,063	781	62,127	3,480	4,053	3,405	770	201	1,008	2,032	3,574	10,521	88,918	5,609	85,019	0,009	5,410	97,910			
Mad	187	1,160	460	100	209	351	29	2,284	807	220	103	73	14	60	01	180	1,568	3,802	20	2,543	543	901	2,140			
Kharif	1,179	35,243	6,275	5,107	4,777	11,400	2,250	69,091	2,342	8,140	2,317	...	...	...	1,869	2,029	18,606	87,607	5,608	81,996	12,703	8,311	60,050			
Mad	101	4,072	217	255	170	491	113	2,382	620	401	30	...	...	...	97	118	1,378	3,769	424	3,339	713	902	1,721			

## TAHSIL RUPBAS.

No. 3.—Statement of Realisations and Balances from Sambat 1912 to Sambat 1956.

1	2	3	4	5	6	7	8	9	10
Name of year.	Total demand.	Realised.	REMITTED OR REDUCED.		BALANCE.		JAMA OF RESUMED AREA.		REMARKS.
			Remitted.	Reduced.	Realised up to date.	Balance up to date.	Realised.	Balance up to date.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sambat 1912=1855-56 ...	99,090	99,076	...	...	23	...	...	...	
Sambat 1915=1858-59 ...	1,16,200	1,10,200	...	...	...	...	...	...	
Sambat 1918=1861-62 ...	1,18,200	1,17,450	...	...	849	...	...	...	
Sambat 1928=1871-72 ...	1,29,070	1,29,668	...	...	2	...	...	...	
Sambat 1930=1893-93 ...	1,42,870	1,25,152	...	...	1,240	16,459	569	352	
Sambat 1947=1900-01 ...	1,09,518	89,477	...	...	637	10,329	1	...	
Sambat 1948=1901-02 ...	1,05,267*	91,803	...	...	1,901	11,583	...	6	* According to Jama Kharch.
	1,01,474	91,779	...	...	1,001	10,793	...	...	
Sambat 1949=1892-03 ...	1,05,766	99,542	...	...	1,780	5,434	27	...	
Sambat 1950=1893-04 ...	1,05,786	99,457	...	...	898	5,453	42	...	
Sambat 1951=1894-05 ...	1,05,994	1,00,471	...	...	240	5,264	36	...	
Sambat 1952=1895-06 ...	1,05,984	78,330	...	573	1,437	25,845	21	...	
Sambat 1953=1896-07 ...	1,05,411	57,749	...	...	11,119	36,543	50	...	
Sambat 1954=1897-08 ...	1,05,295	98,228	...	...	201	6,666	20	...	
Sambat 1955=1898-09 ...	1,05,777	81,039	...	...	...	22,739	72	6	



TAHSIL RUPBAS.

No. 4 —Statement of Sales and Mortgages.

Details.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	FROM 1856 TO 1880.								FROM 1880 TO 1892.								
	Mortgages.				Sales.				Mortgages.				Sales.				
	Cultivated.	Uncultivated.	Mortgage money.	Rs. A. P.	Cultivated.	Uncultivated.	Price.	Rs. A. P.	Cultivated.	Uncultivated.	Mortgage money.	Rs. A. P.	Cultivated.	Uncultivated.	Price.	Rs. A. P.	Rate per Bigha.
To Zamindars of the same village	10,610	7,853	59,581	3 3 2	3,810	3,171	10,453	1 7 0	2,014	1,032	12,874	4 2 7	1,370	651	3,470	1 10 1	
	...	...	...	...	...	...	...	...	60	20	160	1 12 11	21	12	300	9 5 4	
To Zamindars of other villages	678	172	5,025	5 14 0	1,312	095	9,503	1 14 0	203	257	007	1 10 9	710	497	2,010	1 11 0	
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
To moneylenders	2,510	323	29,653	0 15 7	530	213	4,687	0 2 0	900	380	5,227	4 2 7	130	81	108	0 15 0	
	80	52	153	1 1 7	...	...	...	...	...	...	...	...	...	...	...	...	
Total	14,061	9,323	93,453	4 2 9	5,607	4,379	19,003	1 14 1	3,213	1,603	19,008	3 14 0	2,235	1,272	5,720	1 10 2	
	80	52	152	1 1 7	...	...	...	...	60	29	150	1 12 11	21	12	300	9 5 4	

Details.

To Zamindars of the same village

To Zamindars of other villages

To moneylenders

Total

No. 5.—Statement of cultivating occupancy.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Details.	Total cultivated area.	Cultivated by owners.	BY TENANTS FREE OF RENT OR AT LESS THAN OWNERS' RATE.			AREA CULTIVATED BY OCCUPANCY TENANTS.			Details.	RENTS IN KIND.						RENTS.		CASH RENTS.				Total area held by tenants-at-will.	AVERAGE RENTS PER BIGHA.		REMARKS.
			Free of rent.	Less than owners' rate.		At owners' rate with or without Mafi.	At other rates.	Total.		Two-thirds.	One-third.	Less than one-third.		Total area under Mafi.	Area.	Rupces.	Area.	Rupces.	By Dhal Bachh.		By other rates.				
				Area.	Rupces.							Share.	Area.						Area.	Rupces.	Area.		Rupces.		
{ Khalas ... Area ... Rupces ... }	{ 7,603 ... 63,010 ... ... }	{ 1,673 ... 39,835 ... ... }	417	37	...	168	307	465	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	1,101	3,400	2,103	8,903	3,204	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }	On area in column 21.	
			1,705	160	60	1,003	2,830	3,033	{ Mad ... }	...	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }		
			...	...	...	2,120	4,780	7,300	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }		{ On area in column 19. ... On area in column 21. ... }
{ Mad ... Area ... Rupces ... }	{ 306 ... 4,617 ... ... }	{ 91 ... 1,612 ... ... }	17	...	...	...	21	21	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	29	87	151	401	180	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }	On area in column 21.	
			40	...	...	...	157	149	140	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }		
			...	...	...	...	236	236	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }		{ On area in column 19. ... On area in column 21. ... }
{ Khalas ... Area ... Rupces ... }	{ 7,609 ... 86,698 ... ... }	{ 1,967 ... 40,337 ... ... }	401	37	...	163	323	460	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	11,018	17,032	21,306	27,957	32,327	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }	On area in column 21.	
			1,715	180	60	1,003	2,970	4,063	{ Mad ... }	...	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }	{ On area in column 19. ... On area in column 21. ... }		
			...	...	...	2,420	6,025	7,415	{ Khalas ... Chahl ... }	...	...	...	...	...	...	...	...	...	...	...	...	...	{ Ra. A. P. ... Ra. A. P. ... }		{ On area in column 19. ... On area in column 21. ... }

## TAHSIL RUPBAS.

No. 6.—Statement showing rents by class of soil. (Khalsa).

1	2	3	4	5	6	7	8
Details.	CASH RENT.			Mondal's share of crop.	OWNER'S SHARE OF CROP.		REMARKS.
	Arca.	Rent.	Rate per Bigha.		Arca.	Share.	
Chahi permanent ... ..	1,743	Rs. 4,688	Rs. A. P. 2 12 10	...	...	...	
Chahi ... } Present ... ..	161	404	2 10 9	...	...	...	
Sairaba ... }							
Chahi former ... ..	64	143	2 10 4	...	...	...	
Sairaba present ... ..							
Chahi temporary ... ..	420	918	2 2 11	...	...	...	
Present ... ..							
Chahi former ... ..	987	1,989	2 0 4	...	...	...	
Sairaba ... } Former ... ..	2,507	4,103	1 9 10	...	...	...	
... }							
Present ... ..	2,034	8,660	1 14 6	...	...	...	
Barani ... } Barishl ... ..	6	24	4 0 0	...	...	...	
... }							
Barani ... ..	14,765	16,006	1 3 6	...	...	...	
Bhur Barani ... ..	2,921	3,676	0 13 4	...	...	...	
Total ... ..	25,708	33,208	1 7 0	...	...	...	

TAHSIL RUPBAS.

No. 6-A.—Statement showing Rent by class of soil. (Mafi.)

1	2	3	4	5	6	7	8
Details.	CASH RENT.			Mierah's share of crop.	OWNER'S SHARE OF CROP.		REMARKS.
	Area.	Rent.	Rate per Bigha.		Area.	Share.	
Chahi permanent     ...     ...     ...     ...	142	Rs. 297	Rs. A. P. 2 1 5	...	...	...	
Chahi     ... } Sairaba     ... } Present     ...     ...     ...	40	73	1 13 2	...	...	...	
Chahi former     ...     ...     ...     ... } Sairaba present     ...     ...     ...     ... }	2	6	2 0 0	...	...	...	
Chahi temporary     ...     ...     ...     ... } Present     ...     ...     ...     ... }	14	28	2 0 0	...	...	...	
Chahi former     ...     ...     ...     ...	62	50	0 14 5	...	...	...	
Sairaba     ... } Former     ...     ...     ...     ... }	23	23	1 0 0	...	...	...	
Present     ...     ...     ...     ...	636	745	1 8 0	...	...	...	
Barani     ... } Barishi     ...     ...     ...     ... }	...	...	...	...	...	...	
Barani     ... } Barani     ...     ...     ...     ... }	620	477	0 12 4	...	...	...	
Bhur Barani     ...     ...     ...     ...	243	226	0 14 10	...	...	...	
Total     ...	1,782	1,920	1 1 4	...	...	...	

No. 7.—Statement showing ownership by tribes and tenures.

Tenure.	Leading tribes.	Number of owners.			Number of proprietary holdings.	Total area.	Cultivated.	Jama in the past year.	Number of tenancy holding.	Number of occupancy tenants.	Number of tenants at will.	Remarks.
		Present.	Absent.	Total.								
Zamindari pure 3.	...	42	7	69	23	2,830	1,554	940	...	...	...	
Zamindari joint—	...	...	...	...	...	...	...	...	...	...	...	
Khalsa 23½ Mad	...	1,017	421	1,438	236	52,163	10,330	24,900	...	...	...	
	...	40	1	41	17	612	445	...	...	...	...	
Fallidari perfect—	...	647	107	754	182	57,069	28,961	30,881	...	...	...	
Khalsa 1 Mad	...	14	...	14	3	327	229	...	...	...	...	
Fallidari imperfect—	...	210	37	247	49	12,221	6,419	8,416	...	...	...	
Khalsa 34 Mad	...	17	2	19	1	1,021	686	...	...	...	...	
Thryachara imperfect—	...	380	114	494	72	20,983	10,981	12,023	...	...	...	
Khalsa 0½ Mad	...	125	18	143	12	303	1,711	...	...	...	...	
Fallidari Thryachara—	...	91	20	117	24	4,666	2,402	2,561	...	...	...	
Khalsa 1	...	...	...	...	...	...	...	...	...	...	...	
Kham 1	...	203	35	244	31	8,333	5,613	5,179	...	...	...	
	...	...	...	...	...	...	...	...	...	...	...	
State property 1.	...	453	189	642	32	11,627	7,130	8,108	...	...	...	
	...	10	...	10	1	218	109	...	...	...	...	
Total Khalsa 73½ Mad	...	60	31	91	5	1,018	405	539	...	...	...	
	...	...	...	...	...	...	...	...	...	...	...	
	...	71	20	100	18	1,712	1,188	1,401	...	...	...	
	...	10	10	20	4	403	312	...	...	...	...	
Kham	...	...	...	...	...	1,618	1,032	1,630	...	...	...	
State property	...	...	...	...	...	7,380	...	...	...	...	...	
	...	...	...	...	...	24	...	...	...	...	...	
Total	...	3,720	1,057	4,777	672	1,70,623	83,910	1,05,955	2,505	313	2,881	
	...	216	31	247	35	5,719	3,543	...	171	23	198	

No. 8.—Statement of cattle, carts, population, etc.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Details,	Houses,	Flourish,	Oxen,	Cows,	She-buffaloes,	Ho-buffaloes,	Sheep and Goats,	Horses,	Donkeys,	Mules,	Camels,	Total,	Carts,	Details.	POPULATION.						Grand Total,	Remarks,
															Cultivators.		Non-cultivators,		Total,			
															Males,	Females,	Males,	Females,	Males,	Females,		
Settlement of Sanbat 1917=	4,517	1,001	3,783	9,129	1,671	357	9,103	277	285	..	0	17,587	60	Sanbat 1917.	7,040	6,694	4,201	9,309	11,811	0,203	21,044	
Present Settlement..	5,333	2,015	5,206	19,130	6,300	1,019	6,010	499	693	..	29	31,423	253	Sanbat 1936.	11,704	9,522	2,731	2,306	14,435	11,017	26,952	

No. 2.—Statement showing details of wells, etc.

xviii

1																									25																																																											
Details,																									RUSSIAN.																																																											
MASONRY.																									DHENKLIS.																									TOTAL.																																		
WELLS.												AREA.													NUMBER OF WELLS.												AREA.												PERMANENT.												TEMPORARY.												CHABI FORMER.											
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.						AREA.						PERMANENT.						TEMPORARY.						CHABI FORMER.																																																
WELLS.						AREA.						NUMBER OF WELLS.</																																																																								





---

TAHSIL OCHAIN.

---

## TAHSIL OCHAIN.

No. 1.—Area Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Detail.	Period.	Total area.	UNCULTURABLE.				Culturable waste.	Total uncultivated.	Other unassessed State property.	New fallow.	CHAHIL.			CHAHIL SAHABA.			NAHIL.			SAHABA.				Total.	
			State Panchayat.		Unculturable.	Rajmankant.					Present.	Former.	Temporary present.	Present.	Chahi former and Sahaba present.	Temporary Chahi and Sahaba present.	Chahi Nahil.	Present.	Former.	Present.	Former.	Barshil.	Khatil.		
			Land.	Hills.																					Others.
Khatil.	Last Settlement ...	2,02,011	1,376	...	5,001	15,322	27,773	40,175	801	40,201	30,203	7,651	...	...	...	...	...	...	...	...	...	...	...	18,200	
	Sambat 1955 = 1903-50	2,03,021	1,022	...	9,834	10,233	53,009	72,209	1,018	6,713	17,003	6,771	205	0,571	1,255	102	...	...	...	...	...	...	...	40,071	
	Difference { Decrease	...	...	...	5,059	...	...	...	...	42,681	20,605	883	...	...	...	...	...	...	...	...	...	...	...	...	
	Difference { Increase	1,011	213	1,833	...	25,836	22,823	187	...	...	...	...	...	206	0,571	1,255	102	...	...	...	...	...	...	...	28,708
Mia.	Sambat 1956 = 1900-1000.	2,03,022	1,623	...	9,831	10,010	46,603	53,168	908	22,105	17,221	4,004	437	0,873	1,103	1,172	311	2,344	...	...	...	...	...	...	35,868
	Last Settlement ..	31,208	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambat 1955 = 1903-00	29,377	...	...	10	1,351	0,030	8,297	95	1,073	4,310	1,013	31	814	60	...	...	...	...	...	...	...	...	...	6,638
	Difference { Decrease	1,691	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total.	Difference { Increase	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambat 1956 = 1900-1900	29,378	...	...	10	1,303	0,250	7,000	95	2,921	3,579	477	81	1,710	92	168	14	79	...	...	...	...	...	...	6,250
	Last Settlement	2,33,976	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambat 1956 = 1903-00	2,32,009	1,023	...	9,811	11,584	60,515	80,505	1,113	7,780	21,412	7,813	230	7,355	1,314	102	...	...	...	...	...	...	...	...	53,060
Total.	Difference { Decrease	850	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Difference { Increase	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambat 1956 = 1900-1900	2,33,000	1,023	...	6,514	11,433	52,028	72,927	1,093	25,020	21,100	4,611	518	11,013	1,105	1,310	325	2,423	...	...	...	...	...	...	41,147

TAHSIL OCHAIN.

No. 1.—Area Statement—contd.

1	2	20	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	DEPTH.					
Details.	Period.	BARANI.			Total.	Total cultivated.	GARDENS.			WELLS.										DRAINAGE.		TEMPERATURE.	DEPTH.		
		Barani.	Bhar Barani.				Chahi.	Sairaba.	Barani.	MASONRY.		MASONRY.		MASONRY.		MASONRY.		Permanent.	Temporary.	MASONRY.	KLAY.				
Khas.	Last settlement	40,740	...	40,740	1,02,804	5	11	71	420	1,331	70	1,769	70	04	1	04	1	...	27	15	18	18	13		
	Sambat 1955 = 1898-00	41,020	3,902	44,631	10,23,602	9	11	71	420	1,174	268	1,555	300	02	14	03	14	13	41	18	15	27	11		
	Difference	5,111	...	2,209	...	...	...	...	...	6	157	...	203	...	2	...	2	...	...	...	...	3	1		
	Increase	...	...	2,003	...	20,638	4	...	...	...	...	100	...	314	...	13	...	13	10	3	...	9	...		
M.S.	Last settlement	39,605	3,202	42,857	1,15,270	9	11	71	209	1,362	209	1,500	241	201	7	202	7	14	423	...	...	...	...		
	Sambat 1955 = 1898-00	7,905	40	7,051	19,902	5	...	5	71	225	30	320	77	16	1	16	1	2	...	...	...	...	...		
	Difference	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Increase	...	...	...	...	...	...	...	...	3	13	...	38	...	...	...	...	...	...	...	...	...	...		
Total.	Last settlement	0,805	30	6,004	18,683	5	...	5	06	231	36	335	70	26	...	26	...	4	9	...	...	...	...		
	Sambat 1955 = 1898-00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Difference	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Increase	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		

TAHSIL OCHAIN.

No. 2.—Crop Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
SALRABA.																											
Details.	CHAHIL.										Kharif.										Kharif.						
	Kharif.										Rabi.										Total of Chahl.						
	Cotton.	Bajra.	Jawar.	Mashua.	Gawar Charhi.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and Gram.	Wheat and Gram.	Wheat and Barley.	Others.	Total.	Total of Chahl.	Cotton.	Bajra.	Jawar.	Mashua.	Gawar and Charhi.	Til.	Others.	Total.		
Sambat 1913 = 1914-02	3,492	...	...	...	...	...	377	3,869	9,111	14,560	...	...	...	360	938	20,430	30,200	253	2,123	224	271	1,814	421	51	5,189		
Sambat 1910 = 1913-03	3,608	...	...	...	...	...	618	4,316	9,083	12,431	...	...	...	451	918	24,313	28,050	270	2,091	537	213	2,020	350	51	5,463		
Sambat 1909 = 1913-04	4,700	...	...	...	...	...	913	5,703	9,187	12,802	...	...	...	345	851	20,667	32,370	296	1,822	812	140	1,412	711	115	5,359		
Sambat 1911 = 1914-03	5,898	...	...	...	...	...	1,008	6,819	9,014	11,168	...	...	...	138	819	25,453	32,209	708	2,473	298	53	2,018	1,306	51	7,003		
Sambat 1912 = 1915-00	1,901	...	...	...	...	...	1,010	3,007	5,733	10,281	...	...	...	247	401	20,087	23,004	133	2,474	351	155	1,008	1,121	03	0,001		
Sambat 1913 = 1914-07	3,038	...	...	...	...	...	420	4,358	4,830	19,440	...	...	...	507	253	24,221	28,579	319	5,335	518	153	1,860	007	38	9,211		
Sambat 1914 = 1917-08	970	...	...	...	...	...	200	1,269	9,231	13,892	...	...	...	38	207	23,305	23,601	371	4,114	469	77	451	83	30	5,535		
Six years' average	3,520	...	...	...	...	...	721	4,250	7,300	12,851	...	...	...	289	519	23,801	28,111	305	3,911	503	133	1,581	768	50	6,410		
Khalea	1,010	107	29	41	9	110	507	2,011	9,921	11,727	105	175	0	1,092	557	21,705	21,400	374	0,037	1,125	057	1,555	090	86	11,463		
Mad	210	...	35	7	...	10	48	320	1,174	3,102	14	23	27	121	132	4,877	5,206	22	453	50	80	145	32	5	799		
Khalea	2,450	1,900	701	203	212	305	797	6,303	4,607	15,799	85	58	3	1,990	558	1,819	21,830	31,220	791	3,707	3,575	2,073	1,831	1,385	144	13,509	
Mad	201	193	231	32	23	27	70	835	1,337	3,407	3	42	14	142	97	209	5,401	9,230	79	430	740	305	231	135	13	1,915	

## TAHSIL OCHAIN.

No. 2.—Crop Statement—contd.

1	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55														
SARABHA.																	BARANI.																														
Details.	Bar.																	Kharif.															Bar.														
	Wheat.	Barley.	Gram.	Barley and Gram.	Barley and wheat.	Wheat and barley.	Oilseeds.	Others.	Total.	Total of Sarabha.	Cotton.	Barley.	Jawar.	Masha.	Gawar Charal.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and Gram.	Wheat and Gram.	Wheat and Barley.	Oilseeds.	Others.	Total.	Total of Barani.																			
Sambat 1049 = 1891-03	4,921	705	3,769	7,221	701	86	810	309	17,822	23,008	1,366	14,335	4,687	1,713	21,059	653	27	41,930	65	64	25,189	8,489	129	11	393	10	31,254	78,024																			
Sambat 1050 = 1892-03	3,370	628	3,631	6,700	645	321	429	323	15,012	20,405	1,265	12,851	7,055	1,067	24,329	567	89	40,025	...	10	11,165	4,956	205	2	202	40	10,600	53,715																			
Sambat 1050 = 1893-04	3,954	570	4,410	0,100	1,035	208	1,270	333	17,040	23,290	2,140	11,819	0,611	1,673	10,590	1,149	30	46,734	15	85	0,294	3,620	277	174	372	11	19,818	56,635																			
Sambat 1051 = 1894-05	0,719	1,177	4,104	0,550	2,451	15	785	243	22,077	20,070	3,450	16,506	70,037	460	10,003	1,800	19	45,103	00	320	15,377	4,017	1,674	28	700	138	22,413	07,606																			
Sambat 1052 = 1895-06	2,841	513	3,639	0,860	710	154	311	460	15,551	21,625	1,217	14,790	4,743	675	17,326	1,533	3	40,283	...	52	3,016	2,101	432	...	07	10	0,278	46,501																			
Sambat 1053 = 1896-07	906	538	1,903	0,373	561	687	82	305	11,355	20,666	1,860	24,605	5,345	808	17,546	1,582	7	51,903	...	...	658	1,422	140	...	31	...	2,260	51,003																			
Sambat 1054 = 1897-08	2,100	3,913	2,539	11,460	1,409	27	935	249	22,733	28,327	2,518	37,056	7,378	7,069	8,060	1,146	285	64,378	42	1,540	11,164	3,574	429	31	1,030	283	18,090	83,074																			
Six years' average	3,369	1,312	3,304	7,182	1,121	235	630	320	17,411	28,981	2,075	10,014	7,013	2,075	17,258	1,294	70	49,308	21	334	8,044	3,292	542	40	510	60	12,869	62,297																			
Khalasa	1,743	3,009	4,501	7,338	3,051	2,070	1,596	1,142	27,439	38,002	2,901	31,160	6,049	14,708	0,840	5,176	403	99,146	4	132	1,241	57	70	0	145	28	1,050	69,833																			
Mad	403	467	137	381	60	265	114	54	1,057	5,760	483	5,663	1,416	3,028	1,235	819	72	12,594	...	10	160	16	...	...	60	5	242	12,036																			
Khalasa	073	1,188	1,700	3,005	012	1,650	633	1,502	14,376	25,881	3,294	26,065	0,255	16,253	7,434	6,493	585	66,269	...	...	...	...	1	2	3	4	8	60,277																			
Mad	35	17	70	141	238	102	43	7	650	2,611	443	1,801	719	2,560	1,429	803	64	10,904	...	...	1	...	...	...	...	...	1	10,905																			

Sambhat 1049 to 1054

B-25

TAHSIL OCHAIN.

No. 2.—Crop Statement—consolid.

		50	57	59	60	01	63	03	64	05	66	67	09	69	70	71	73	73	74	75	76	77	79	
		TOTAL.																						
		Kharif.											Rabi.											
		Cotton.	Bojra.	Jawar.	Mashua.	Gawar Charri.	Wtl.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and gram.	Wheat and gram.	Wheat and barley.	Oilseeds.	Others.	Total.	Total both harvests.	Area double cropped.	Cultivated.	Chaul.	Saltba.	Barabli.
Sambat 1919 = 1901-02		6,101	10,457	4,011	1,091	23,603	1,074	465	52,385	13,427	16,328	28,059	16,701	829	466	1,760	2,091	78,640	1,31,931	28,069	1,02,081	30,200	18,210	84,403
Sambat 1910 = 1902-03		6,212	11,635	4,602	2,170	26,210	917	700	59,821	12,910	19,000	14,890	10,098	910	774	1,279	2,002	50,945	1,14,860	15,607	90,173	29,069	10,563	59,000
Sambat 1909 = 1903-01		7,205	13,610	10,423	1,821	20,738	1,803	1,097	60,787	13,166	13,663	10,701	9,780	1,312	727	2,403	8,736	55,401	1,12,248	11,865	1,00,303	30,406	20,037	45,001
Sambat 1901 = 1904-05		10,080	18,709	7,335	523	18,111	3,109	1,030	60,011	10,402	12,065	10,641	10,607	4,009	181	2,415	4,074	80,373	1,28,964	23,073	1,05,011	32,309	23,001	40,711
Sambat 1903 = 1905-06		3,311	17,270	6,007	630	10,021	2,917	1,092	49,221	9,674	10,370	7,255	8,901	1,142	491	770	3,901	41,889	91,180	8,793	81,412	23,001	20,450	40,863
Sambat 1903 = 1906-07		9,093	30,200	5,593	791	10,400	2,540	465	95,372	5,445	10,078	3,601	7,795	707	1,104	309	2,789	37,836	1,03,208	8,737	91,471	29,670	10,008	46,891
Sambat 1904 = 1907-08		3,903	41,109	7,817	7,133	0,411	1,229	685	71,213	8,463	10,315	13,703	15,024	1,839	00	2,892	2,409	63,823	1,86,086	20,606	1,14,470	25,125	26,126	61,220
Six years' average		6,060	22,065	7,516	2,208	19,830	2,062	650	60,088	10,775	14,307	11,408	10,474	1,673	891	1,703	3,177	51,171	1,14,369	14,451	90,806	27,798	21,103	60,815
Sambat 1903-09 Khalsa "		4,921	37,001	6,102	16,739	6,413	5,091	1,080	82,220	10,771	14,868	5,737	7,661	3,130	3,177	2,308	3,379	60,020	1,33,140	9,517	1,23,603	23,980	33,513	90,070
Sambat 1905-09 Mad "		723	0,010	1,617	9,121	1,420	600	125	13,932	1,667	2,686	901	419	83	386	302	543	7,088	20,008	903	10,012	5,169	2,200	12,483
Sambat 1903-09 Khalsa "		4,175	33,393	10,631	17,660	9,480	6,168	1,606	60,171	5,450	10,937	1,701	8,003	610	3,842	1,224	3,316	37,210	1,23,390	8,029	1,15,301	29,023	24,232	63,100
Sambat 1903-09 Mad "		723	6,429	1,745	2,003	1,093	1,055	140	13,084	1,372	3,431	60	183	253	561	140	300	9,068	10,753	1,050	19,993	5,877	2,476	10,340

[illegible]



TAHSIL OCHAIN.

No. 4.—Statement of Sales and Mortgages.

No. 4.—Statement of Sales and Mortgages.																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Details.	FROM 1855-1859.								FROM 1860-63.								Remarks.
	Mortgages.				Sales.				Mortgages.				Sales.				
	Cultivated.	Uncultivated.	Mortgage money.	Rs. A. P.	Rate per Bigha.	Cultivated.	Uncultivated.	Price.	Rs. A. P.	Rate per Bigha.	Cultivated.	Uncultivated.	Mortgage money.	Rs. A. P.	Rate per Bigha.	Price.	
To zamindars of the same village	10,007	6,025	72,852	4 8 0	7,04	4,313	13,703	1 1 11	1,727	903	8,109	3 1 8	1,305	749	2,213	1 0 6	Khalsa.
	100	21	1,037	8 14 10	89	15	240	2 0 2	100	...	10,200	82 0 5	...	...	...	...	Mad.
To zamindars of other villages	409	212	3,051	5 0 0	553	245	075	0 13 0	203	259	1,012	1 14 10	14	5	102	8 8 5	Khalsa.
	25	11	60	1 13 4	...	...	...	...	101	42	555	3 14 1	...	...	...	...	Mad.
To money-lenders	693	259	6,840	5 15 1	61	21	210	1 14 10	217	182	652	3 0 2	73	63	142	1 2 3	Khalsa.
	50	...	1,509	31 15 4	...	...	...	...	23	...	1,102	50 8 4	...	...	...	...	Mad.
Total	11,109	8,400	83,052	4 10 7	9,691	4,578	14,031	1 1 8	3,220	1,344	10,103	2 13 8	1,482	805	2,017	1 1 7	Khalsa.
	271	32	3,091	11 14 2	89	15	240	2 0 2	200	42	12,013	30 3 0	...	...	...	...	Mad.

## TAHSIL OCHAIN.

No. 6.—Statement showing rent by class of soil (khalsa).

1	2	3	4	5	6	7	8
Details.	CASH RENT.			Menial's share of crops.	OWNER'S SHARE OF CROP.		REMARKS.
	Area.	Rent.	Rate per bigba.		Area.	Share.	
	Rs.	Rs.	Rs. A. P.				
Chahi permanent present ...	5,697	14,410	2 8 5	...	...	...	
Chahi permanent and Sairaba Present ...	584	1,364	2 5 11	...	...	...	
Chahi temporary present ...	112	192	1 11 5	...	...	...	
Chahi temporary and Sairaba present ...	18	17	1 4 11	...	...	...	
Chahi former ...	1,621	8,093	1 11 3	...	...	...	
Chahi former and Sairaba present ...	104	213	2 0 0	...	...	...	
Former ...	4,240	4,908	1 2 0	...	...	...	
Sairaba ... Now ...	7,022	12,205	1 0 7	...	...	...	
Khatli ...	217	338	1 13 7	...	...	...	
Barahi ...	271	331	1 3 7	...	...	...	
Barani ...	15,971	10,810	1 1 0	...	...	...	
Elur Barani ...	1,333	623	0 10 8	...	...	...	
Total ...	37,020	64,043	1 7 2	...	...	...	

## TAHSIL OCHAIN.

No. 6-A.—Statement showing rents by class of soil (mafi).

1	2	3	4	5	6	7	8	9
Details.	CASH RENT.			Mienial's share of crop.	OWNER'S SHARE OF CROP.		By Fixed crops share.	REMARKS.
	Area.	Rent.	Rate per Bigha.		Area.	Share.		
Bahi permanent present ... ..	3,027	4,294	2 1 11	...	{ 1 1 }	8 234 }	350	
Bahi permanent and Sairaba present. ...	148	335	2 4 3	...	...	...	...	
Bahi temporary present ... ..	14	11	0 12 7	...	...	...	...	
Temporary and Sairaba present ...	...	...	...	...	...	...	...	
former ... ..	623	692	1 1 6	...	...	...	...	
former and Sairaba present ...	11	6	0 7 3	...	...	...	...	
Former ... ..	2,023	1,994	0 15 9	...	...	...	...	
Now ... ..	658	1,465	1 8 4	...	...	...	...	
Khatili ... ..	4	4	1 0 0	...	...	...	...	
Barishi ... ..	2	3	1 8 0	...	...	...	...	
Barani ... ..	4,732	3,867	0 13 2	...	1	4	...	
Bhur Barani ... ..	...	...	...	...	...	...	...	
Total ... ..	10,543	12,570	1 3 1	...	{ 1 1 }	8 239 }	360	

## TAHSIL OCHAIN.

No. 7.—Statement showing ownership by tribes and tenures.

No. of villages.	Tenures.	Leading tribes.	No. of owners.			No. of proprietary holdings.	Total area.	Cultivated.	Jama in the past year.	No. of tenancy holdings.	No. of occupancy tenants.	No. of tenants at will.	REMARKS.
			Present.	Absent.	Total.								
1	Zamindari Khallis ...	Jat ...	333	130	463	143	11,005	7,451	11,330	...	...	...	(1) (1)—Khalea.
		Siosowar ...	279	11	290	66	9,115	7,310	...	...	...	...	(2) (2)—Mañ.
16	Zamindari Joint ...	Other Jats ...	1,789	610	2,109	561	70,123	47,608	62,317	...	...	...	(1)
2			131	10	163	42	1,003	811	...	...	...	...	
15	Perfect Pattidari ...	Rajput ...	203	31	237	23	24,588	13,515	18,017	...	...	...	(1)
			...	...	...	...	...	...	...	...	...	...	(2)
43	Imperfect Pattidari ...	Brahman Bagri ...	664	280	1,144	211	33,157	21,359	35,824	...	...	...	(1)
			33	...	33	49	11,018	5,277	...	...	...	...	(2)
4	Gujar ...	Gujar ...	737	223	960	237	42,260	22,751	20,311	...	...	...	(1)
			7	5	12	1	2,353	1,663	...	...	...	...	(2)
6	Perfect Bhayachara...	Lodha ...	174	44	218	37	5,024	4,393	5,378	...	...	...	(1)
			...	...	...	...	...	...	...	...	...	...	(2)
		Kachl ...	25	7	32	9	703	415	710	...	...	...	(1)
		Mina ...	47	20	67	3	605	635	801	...	...	...	(2)
6	Imperfect Bhayachara...	Dhakur ...	63	1	66	22	240	230	331	...	...	...	(1)
			...	...	...	...	633	710	...	...	...	...	(2)
2	Pattidari Bhayachara...	Sayads ...	5	...	5	...	362	210	243	...	...	...	(1)
			401	...	401	102	3,614	2,875	...	...	...	...	(2)
1	Gaddi ...	Gaddi ...	118	56	173	10	1,064	647	1,500	...	...	...	(1)
			...	...	...	...	...	...	...	...	...	...	(2)
4	Kham ...	Kham ...	63	10	73	20	1,073	1,103	1,630	...	...	...	(1)
			105	...	105	70	1,316	1,101	...	...	...	...	(2)
2	State property ...	State ...	...	...	...	...	2,735	...	...	...	...	...	(1)
			...	...	...	...	...	...	...	...	...	...	(2)
60	GRAND TOTAL ...	Total ...	4,423	1,429	5,852	1,312	2,03,717	1,23,593	1,72,705	6,809	600	7,951	(1)
7	.....	.....	1,114	35	1,149	330	29,232	10,012	...	1,022	27	1,143	(2)

23

**B-37**

No. 2.—Statement showing details of wells, etc.

[illegible]

TAHSIL OCHAIN.

No. 9-A.—Statement of wells by quality of water.

1	Particulars.	MASONRY.										KHAM.				DHENKLIS.										TOTAL.				26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		WELLS.				AREA.			NO. OF WELLS.			AREA.			PERMANENT.		TEMPORARY.		AREA.			Chabi permanent present.	Chabi temporary present.	Chabi former.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Wells.	Laces.	Working.	Not working.	Chabi permanent present.	Chabi temporary.	Chabi former.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Chabi permanent present.	Chabi temporary present.	Chabi former.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

XXXX





---

TAHSIL BIYANA.

---

TAHSIL BIYANA.

No. 1.—Area Statement.

1	2	3	4	5	6	7	8	9	10	11	CHAHIL.			CHAHIL SAIRABA.			19	20	21	22	23	24	25
Details.	Period.	Total area.	UNCULTURABLE.			Culturable waste.	Total uncultivated.	Other unassessable State property.	Now fallow.	CHAHIL.			CHAHIL SAIRABA.			Chahl Nahl.	Nahl.		SAIRABA.				Total.
			State reserves.	Uncultivated.						Permanent.	Former.	Temporary present.	Present.	Chahl former, Sairaba present.	Temporary chahl and Sairaba present.		Present.	Former.	Present.	Former.	Barabhl.	Khabhl.	

xxxxx

TAHSIL BIYANA.

No. 1.—Area Statement—contd.

1	2	26	27	23	20	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
Details.	Period.	Barani.			Total cultivated.	Gardens.			Wells.						Drunkid.		Depth.			Remarks.						
		Barani.	Bhur Barani.	Total.		Chahl.	Sairaba.	Barani.	Masonry.		Kham.		No.	Laoh.	Working.	Not working.	No.	Laoh.	Working.		Not working.	Present.	Temporary.	Masonry.	Kham.	
									No.	Laoh.	No.	Laoh.														
Last settlement	...	63,444	...	63,444	1,34,393	144	...	35	340 1/2	1,933 1/2	...	2,540 1/2	...	766	1	702	1	3	3	29	17	32	13	...		
	Sambat 1056=1893-02	61,824	14,078	75,902	1,41,082	24	...	61	301	1,776 1/2	103 1/2	2,240	128 1/2	47	613 1/2	47	621 1/2	47	24	25	20	20	20	...		
Difference.	Decrease	1,056	...	...	...	120	...	...	...	167 1/2	...	291 1/2	...	173 1/2	...	170 1/2	...	...	...	4	...	12	...	...		
	Increase	...	14,078	13,059	7,000	...	...	19	14 1/2	...	102 1/2	...	128 1/2	46	...	...	46	23	21	...	8	...	14	...		
Sambat 1050=1890-1000	...	61,550	13,634	75,184	1,41,064	24	...	64	287 1/2	1,856 1/2	97 1/2	2,317 1/2	103 1/2	725	67 1/2	738	63 1/2	28	445	...	...	...	...	...		
	...																									
		Difference.																								
		Decrease																								
		Increase																								
		Sambat 1050=1890-1000																								

TAHSIL BIYANA.

No. 1.---Area Statement---contd.

1	2	3	4	5	6	7	8	9	10	11	CHAHIL.			CHAHIL SAHABA.			18	NAHAL.		21	23	24	25	
Details.	Period.	Total area.	UNCULTURABLE.				Culturable waste.	Total uncultivated.	Other unassessable State property.	New fallow.	CHAHIL.			CHAHIL SAHABA.			Chahi Nahil.	NAHAL.		Present.	Former.	Barahil.	Kharilil.	Total.
			UNCULTURABLE.								PERMANENT.	Former.	Temporary present.	Present.	Chahi former Sahaba present.	Temporary Chahi and Sahaba present.		Present.	Former.					
			UNCULTURABLE.																					
			STATE RESERVE.	HILL.	Others.																			
			Land.	Barahil.	Hill.	Others.					Present.	Former.	Temporary present.	Present.	Chahi former Sahaba present.	Temporary Chahi and Sahaba present.		Present.	Former.					
																			</					

TAHSIL BIYANA.

No. 1.—Area Statement—contd.

1	2	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	43	44	45	46	47	48	
Details.	Period.	Barani.			Total cultivated.	Gardens.			WELLS.								DIRECTIONS.		DEPTH.				Remarks.			
		Barani.	Bhar Barani.	Total.		Chabl.	Bairaba.	Barani.	MACHINERY.		No.		Lacs.		No.		Lacs.		Present.		Temporary.			To water.		To water.
	Just settlement	...	...	...	...	...	...	...	49½	30½	...	...	420½	...	49	...	...	...	...	...	...	...	...	...	...	...
	Sambat 1035-1896-90	7,633	1,056	8,691	10,487	70	...	49	4½	274½	31½	...	305	38½	4½	0	42½	0	1	2	...	...	...	...	...	...
Major.	Decrease	...	...	...	...	...	...	...	4½	26½	...	...	64½	...	7½	...	...	...	...	...	...	...	...	...	...	...
	Increase	...	...	...	...	...	...	...	...	...	3½	...	...	33½	...	6	...	0	1	2	...	...	...	...	...	...
	Sambat 1036-1899-1000	8,813	1,050	7,890	10,342	70	...	49	3½	280½	2½	...	360	2½	97	1½	...	...	...	...	...	...	...	...	...	...

TAHSIL BIYANA.

No. 1.—Area Statement—contd.

1	2	3	4	5	6	7	8	9	10	11	CHAHIL.			CHAHIL SAHARA.			18	NABRI.		21	22	23	24	25
											PERMANENT.	Former.	Temporary present.	Present.	Chahil former saraba present.	Temporary Chahil and saraba present.		Present.	Former.					
Details.	Period.	Total area.	Bund.	Bund.	Others.	Culturable waste.	Total unculturable.	Other unassessable State property.	New fallow.	Permanent.	Former.	Temporary present.	Present.	Chahil former saraba present.	Temporary Chahil and saraba present.	Chahil Nabri.	Present.	Former.	Total.	Decrease	Increase	Difference.	Sambal 1935-1939-1940	Total.
	Last settlement	5,02,572	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambal 1935-1939-40	5,01,193	200	...	1,55,013	70,784	3,34,302	2,441	13,612	41,090	8,750	592	2,709	140	170	740	693	450	19,740	4,124	2,077	627	20,877	...
	Decrease	1,430	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Increase	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sambal 1935-1939-1940	5,01,143	1,200	...	1,66,013	73,014	3,15,003	2,621	21,451	41,683	7,240	1,466	4,393	53	831	2,055	4,270	218	9,493	0,813	1,851	1,161	15,504	...

No. 1. — Area Statement — concl.

1	2	20	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Details.	Period.	DARAB.			Total cultivated.	GARDENS.			WELLS.								DRAINAGE.		DEPTH.				REMARKS.	
		Darab.	Bhar Darab.	Total.		Chabi.	Sakaba.	Barani.	MASONRY.		KHAM.		No.	Laos.	No.		Laos.	Present.	Temporary.	MASONRY.	KHAM.			
									Working.	Not working.	Working.	Not working.			Working.	Not working.						Working.		Not working.
	Last settlement	"	"	"	"	"	"	"	306	2,235	"	2,970	"	Not working.	635	1	641	1	2	3	"	"	"	"
	Gambet 1858-1868-09	"	15,738	65,093	1,01,400	04	"	103	405	2,051	137	2,014	102	655	53	601	53	25	26	"	"	"	"	"
	Decrease	"	"	"	"	"	"	"	"	184	"	366	"	186	"	177	"	"	"	"	"	"	"	"
	Increase	"	"	"	"	"	"	"	10	"	137	"	163	"	53	"	52	23	23	"	"	"	"	"
	Sarbat 1858-1868-1000	"	68,372	82,493	1,01,300	04	"	163	333	2,147	123	2,704	146	822	72	835	71	25	537	"	"	"	"	"

## TAHSIL EYANA.

## No. 2.—Crop Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Period.	CHAHIL.																			SAIBADA.						
	Kharif.									Rabi.										Kharif.						
	Cotton.	Bajra.	Jowar.	Mashua.	Gawar Charri.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and gram mixed.	Wheat and gram mixed.	Wheat and barley mixed.	Oilseeds.	Others.	Total.	Total of Chahl.	Cotton.	Bajra.	Jowar.	Mashua.	Gawar Charri.	Til.	Others.	Total.
Sambat 1919 = 1901-03	43	14,171	260	...	...	...	319	14,769	11,463	14,609	...	...	...	...	120	4,010	30,090	44,930	236	9,752	603	701	1,108	29	171	0,717
Sambat 1919 = 1902-03	13,467	...	200	...	...	...	643	14,509	11,141	12,203	...	...	...	...	103	4,933	29,635	42,894	139	4,728	931	1,972	...	07	129	7,744
Sambat 1920 = 1903-04	16,606	...	276	...	...	...	708	16,480	11,001	13,193	...	...	...	...	179	7,629	32,049	40,437	267	3,702	1,113	1,311	065	77	70	7,607
Sambat 1921 = 1904-05	16,418	...	235	...	...	...	664	17,347	11,333	11,495	...	...	...	...	181	9,973	32,075	40,422	555	4,205	810	2,007	...	110	80	7,937
Sambat 1922 = 1905-06	13,779	...	250	...	...	...	794	13,843	10,200	13,403	...	...	...	...	92	5,470	20,717	43,560	71	4,060	506	1,382	...	00	03	0,221
Sambat 1923 = 1906-07	15,055	...	350	...	...	...	977	15,792	7,398	17,459	...	...	...	...	10	4,860	20,501	45,283	124	5,903	050	1,801	...	94	93	8,041
Sambat 1924 = 1907-08	11,057	...	206	...	...	...	407	11,720	7,705	15,403	...	...	...	...	239	4,333	27,770	30,400	460	7,904	610	1,907	...	19	01	10,623
Six years' average	14,063	...	292	...	...	...	681	14,916	9,081	13,590	...	...	...	...	162	5,071	30,000	45,005	269	5,080	810	1,737	159	75	82	8,197
Khalsa...	10,815	590	603	257	59	294	704	13,175	7,076	13,018	200	67	17	912	073	4,940	28,471	41,910	233	2,210	030	900	410	101	49	4,313
Mad...	1,907	06	160	05	5	01	140	2,463	1,593	1,003	24	33	13	01	169	863	4,036	7,030	10	237	39	17	127	10	8	447
Khalsa...	10,300	8,140	1,430	403	34	769	1,019	22,654	0,380	16,461	120	251	38	1,604	767	3,509	20,094	51,038	537	1,361	961	1,160	081	221	130	4,030
Mad...	1,709	855	654	01	63	113	167	3,630	1,340	2,749	10	50	5	207	190	923	6,093	9,013	102	51	107	116	123	27	24	693



1	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55																						
Period.	SAIRABA.										KHARIF.										BARANI.																													
	Barl.					Total.					Cotton.					Bajra.					Jowar.					Masina.					Gawar Charri.					Thil.					Others.					Total.				
	Wheat.	Barley.	Gram.	Barley and gram mixed.	Wheat and gram mixed.	Gram and barley.	Others.	Total.	Cotton.	Bajra.	Jowar.	Masina.	Gawar Charri.	Thil.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and gram mixed.	Wheat and gram mixed.	Gram and barley.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and gram mixed.	Wheat and gram mixed.	Gram and barley.	Others.	Total.																		
Sambat 1918 = 1901-02	5,671	919	1,051	7,038	...	...	631	10,055	23,072	31,068	0,100	17,503	17,070	800	2,075	70,863	52	274	13,053	7,051	...	...	174	21,017	...	...	...	...	...	...	113	21,017	98,169																	
Sambat 1919 = 1902-03	4,403	603	2,113	6,061	...	...	254	13,254	21,018	29,254	7,293	40,107	...	1,309	90	75,335	77	072	12,300	4,590	...	...	117	17,801	...	...	...	...	...	...	100	17,801	90,100																	
Sambat 1920 = 1903-04	3,015	770	2,741	6,450	...	...	420	13,018	21,255	27,374	6,774	20,775	10,232	1,273	505	71,804	43	321	7,591	3,212	...	...	47	11,254	...	...	...	...	...	...	40	11,254	89,069																	
Sambat 1921 = 1904-05	0,000	811	3,417	0,725	...	...	687	17,893	25,770	31,098	5,062	33,006	...	1,203	100	72,375	201	101	12,657	4,275	...	...	107	18,436	...	...	...	...	...	...	1	18,436	90,810																	
Sambat 1922 = 1905-06	4,805	053	2,022	3,619	...	...	610	10,802	17,093	20,731	4,537	31,782	...	1,700	109	68,725	9	32	4,093	2,011	...	...	10	7,001	...	...	...	...	...	...	...	76,726																		
Sambat 1923 = 1906-07	1,572	1,540	1,485	...	...	...	253	15,720	16,020	37,107	5,623	29,823	...	845	62	73,873	170	192	50	...	1,117	...	...	1,032	...	...	...	...	...	...	...	75,555																		
Sambat 1924 = 1907-08	2,881	1,000	2,742	...	...	...	603	15,720	26,213	49,211	7,212	24,211	...	568	140	85,131	21	722	19,105	2,264	1,885	...	...	15,245	...	...	...	...	...	...	10	15,245	98,479																	
Six years' average	3,637	1,056	3,520	3,674	1,490	...	245	13,065	21,232	33,617	0,282	22,617	2,705	1,160	108	75,203	59	325	7,081	2,735	545	...	...	11,703	...	...	...	...	...	...	25	11,703	86,971																	
Sambat 1925 = 1908-09	2,064	2,733	2,275	1,778	401	438	653	11,617	15,850	47,936	7,907	3,069	7,533	3,015	627	100,341	240	393	1,510	77	0	...	...	2,497	...	...	...	...	...	...	110	2,497	102,898																	
Sambat 1926 = 1909-10	573	455	482	103	5	10	30	1,818	2,205	4,250	1,050	3,129	1,742	466	25	12,000	123	9	210	15	...	...	...	423	...	...	...	...	...	...	55	423	12,480																	
Sambat 1927 = 1910-11	1,394	3,479	1,012	1,470	295	281	1,151	10,211	15,171	33,897	7,938	83,571	9,381	5,180	773	92,709	92	44	84	28	...	...	...	188	...	...	...	...	...	...	23	188	92,807																	
Sambat 1928 = 1911-12	231	543	450	500	...	60	106	1,070	2,068	2,926	1,763	3,350	1,717	673	143	10,920	...	4	...	...	...	...	...	10	...	...	...	...	...	...	13	10	10,938																	

*No. 2.—Crop Statement—concl.*

Period.	GRAND TOTAL.												REMAINING AREA CULTIVATED.											
	Классы.												Раст.											
	Cotton.	Bajra.	Jowar.	Masinda.	Gauar Chauri.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Barley and Gram mixed.	Wheat and Gram mixed.	Gram and barley.	Olseeds.	Others.	Total.	Total of both crops.	Double cropped.	Area cultivated.	Chhatt.	Salraha.	Baran.	
Sambat 1913 = 1901-02	15,051	34,701	6,032	18,154	18,872	918	2,661	93,213	10,976	15,823	15,448	14,000	..	..	615	4,782	68,693	100,911	32,350	134,601	44,899	18,411	71,311	
Sambat 1919 = 1892-93	14,037	32,982	8,411	41,970	..	1,370	700	100,308	15,713	13,510	14,422	10,237	..	..	462	5,450	59,650	100,046	28,423	131,695	42,891	15,558	73,833	
Sambat 1956 = 1893-94	17,555	31,130	8,262	22,069	17,187	1,319	1,383	98,000	15,010	14,274	19,335	9,002	..	..	577	8,080	57,850	156,760	27,049	129,701	40,497	10,865	63,410	
Sambat 1951 = 1894-95	19,086	35,203	7,607	34,103	..	1,312	814	97,069	17,003	12,480	10,974	11,000	..	..	411	9,761	97,339	105,008	33,093	131,025	40,422	20,025	62,158	
Sambat 1952 = 1895-96	13,500	33,781	6,412	33,104	..	1,700	1,040	88,780	13,170	14,478	7,885	5,000	..	..	231	0,490	47,650	130,300	19,313	118,081	43,500	15,657	58,031	
Sambat 1953 = 1896-97	10,302	42,010	7,129	30,714	..	929	522	98,500	8,900	10,045	1,733	..	3,033	..	268	5,203	38,252	136,568	17,602	119,100	45,233	14,000	69,023	
Sambat 1954 = 1897-98	14,096	55,901	8,018	20,093	..	590	608	103,330	10,090	17,790	12,037	2,110	0,347	..	958	5,012	59,835	161,221	28,775	133,445	30,109	21,937	74,009	
Six years' average	15,968	38,683	7,375	31,351	2,861	1,225	860	99,250	13,677	15,269	10,603	0,364	2,040	..	487	0,630	51,918	153,207	25,650	127,057	45,000	17,503	65,938	
Khalsa ..	11,301	53,761	9,040	50,002	7,985	3,360	1,370	117,898	10,850	10,711	4,603	1,032	424	1,381	1,405	5,711	42,515	100,313	19,283	142,006	30,051	13,456	59,574	
Man ..	2,333	4,013	2,200	3,210	1,674	537	173	14,916	2,107	2,427	725	231	17	110	263	040	0,007	21,893	2,217	10,006	0,107	2,070	11,033	
Khalsa ..	12,697	43,397	10,215	35,220	10,360	0,103	1,015	120,193	7,606	20,014	1,772	1,788	333	1,875	1,324	4,692	30,483	150,070	17,634	142,042	41,884	14,008	80,070	
Man ..	2,318	3,803	2,474	3,620	1,531	813	324	15,148	1,474	3,200	469	560	5	267	253	740	7,003	22,210	2,760	10,467	7,140	2,359	9,063	

## TAHSIL BIYANA.

No. 3.—Statement of realisations and balances from Sambat 1912 to Sambat 1956.

1	2	3	4	5	6	7	8	9	10
Name of Year.	Total demand.	Realised.	REMITTED OR REDUCED.		BALANCE.		JAMA OF RESUMED AREA.		REMARKS.
			Remitted.	Reduced.	Realised up to date.	Balance up to date.	Realised.	Balance up to date.	
Sambat 1912=1855-56	1,44,466	1,44,466	...	...	...	...	142	...	
Sambat 1915=1858-59	1,43,327	1,43,327	...	...	...	...	36	...	
Sambat 1918=1861-62	1,62,526	1,62,526	...	...	...	...	60	...	
Sambat 1926=1871-72	1,79,832	1,79,126	...	...	359	356	127	...	
Sambat 1939=1882-83	1,87,116	1,85,925	...	...	53	1,197	4,099	363	
Sambat 1947=1890-91	2,06,947	2,03,974	...	...	1,209	1,764	225	3	
Sambat 1948=1891-92	2,05,542	2,04,647	...	...	99	799	643	56	
Sambat 1949=1892-93	2,05,595	2,03,236	...	...	355	1,914	585	26	
Sambat 1950=1893-94	2,05,272	2,03,178	...	...	109	1,806	945	26	
Sambat 1951=1894-95	2,05,341	2,01,683	...	...	...	3,659	602	156	
Sambat 1952=1895-96	2,05,387	1,93,929	...	...	1,232	16,235	632	79	
Sambat 1953=1896-97	2,05,643	1,74,567	...	229	4,622	26,225	679	191	
Sambat 1954=1897-98	2,00,063	2,02,969	...	...	1,000	2,023	670	131	
Sambat 1955=1898-99	2,04,993	2,02,999	...	...	...	1,670	930		

No. 4.—Statement of Sales and Mortgages.

xlvi

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
FROM 1885 TO 1890.																								
FROM 1890 TO 1898.																								
Details.	Mortgages.						Sales.						Mortgages.						Sales.					
	Cultivated.	Uncultivated.	Mortgage money.	Rate per Bigha.		Cultivated.	Uncultivated.	Price.	Rate per Bigha.		Cultivated.	Uncultivated.	Mortgage money.	Rate per Bigha.		Cultivated.	Uncultivated.	Price.	Rate per Bigha.					
				Rs.	Rs. A. P.				Rs.	Rs. A. P.				Rs.	Rs. A. P.					Rs.	Rs. A. P.			
To Zamindars of the same village.	7,659	4,159	1,05,720	9 0 4	13 16 0	1,032	1,528	6,738	1 13 4	3 8 3	8,050	1,542	47,553	10 5 6	15 8 11	227	132	1,235	2 0 9	4 0 0				
	647	278	15,675	13 12 0	10 8 10	...	...	...	...	...	303	74	8,952	10 9 0	13 2 3	81	00	259	1 0 0	3 1 5				
To Zamindars of other village.	751	505	4,019	3 3 7	5 5 11	455	394	1,736	2 8 8	3 13 1	303	1,077	3,239	2 5 5	10 8 3	29	46	200	2 10 8	8 14 4				
	19	...	304	16 0 0	...	...	...	...	...	...	210	15	3,710	10 1 0	17 2 10	...	...	...	...	...				
To money-lenders.	8,131	1,280	26,542	6 0 1	8 7 7	394	1,255	673	0 8 0	2 3 6	1,015	397	12,091	0 2 4	11 14 0	...	...	...	...	...				
	243	17	5,463	21 1 0	23 0 2	...	...	...	...	...	44	...	4,029	...	25 0 1	...	...	...	...	...				
Total.	11,441	5,953	1,36,317	7 13 4	11 14 7	2,491	2,177	8,347	1 7 7	3 5 9	4,304	2,929	62,853	8 9 5	14 4 11	251	178	1,435	2 13 0	4 11 11				
	1,208	295	21,412	15 4 3	17 11 11	...	...	...	...	...	503	59	11,721	17 15 1	20 13 1	81	00	240	1 11 0	3 1 5				

*No. 5. Statement of Cultivating occupancy.*

**Present Settlement.**

NOTE (1) = Kalsi, (2) = Mad and (3) = Subtenants.

TAHSIL BIYANA.

*No. 6.—Statement showing rent by class of soil (Khalsa).*

1	2	3	4	5	6	7	8
Details.	CASH RENT.			Menial's dues.	OWNER'S SHARE OF CROPS.		REMARKS.
	Area.	Rent.	Rate per Bigha.		Area.	Share.	
Chahi permanent present ...	10,331	Rs. 33,339	Rs. A. P. 3 3 3	...	126	$\frac{1}{2}$	
Chahi Sairaba present ...	1,186	2,851	2 5 1	...	...	...	
Chahi Temporary present ...	540	1,414	2 9 11	...	13	$\frac{1}{2}$	
Chahi Former ...	2,171	4,624	2 1 8	...	14 10	$\frac{1}{2}$ $\frac{1}{4}$	
Sairaba { Former ...	1,667	3,154	1 14 5	...	...	...	
Now ...	5,419	8,951	1 10 6	...	2	$\frac{1}{2}$	
Khatili ...	310	991	3 3 2	...	...	...	
Barani { Barishi ...	577	719	1 4 0	...	...	...	
Barani ...	27,005	24,033	0 14 3	...	8	$\frac{1}{2}$	
Barani Bhur ...	6,783	3,316	0 7 10	...	...	...	
Total ...	55,979	83,392	1 8 2	...	150 13 10 173	$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{4}$	

## TAHSIL BIYANA.

No. 6-A.—Statement showing rent by class of soil (Mafi).

1	2	3	4	5	6	7	8
Details.	CASH RENT.			Menial's dues.	OWNER'S SHARE OF CROPS.		REMARKS.
	Area.	Rent.	Rate per Bigha.		Area.	Share.	
			Rs. A. P.				
Chahi present	Chahi permanent.	1,686	4,751	2 13 1	...	4 136	$\frac{3}{8}$ $\frac{3}{8}$
	Chahi sairaba.	169	432	2 8 11	...	28	$\frac{2}{5}$
Chahi Temporary present	...	34	91	2 10 10	...	...	...
Chahi former	...	280	570	2 1 0	...	...	...
Sairaba.	Former	107	149	1 6 7	...	...	...
	Now	338	644	1 14 6	...	54	$\frac{1}{2}$
	Khatili	35	37	1 0 11	...	...	...
Barani.	Barishi	37	42	1 2 0	...	...	...
	Barani	3,144	2,586	0 13 2	...	122	$\frac{1}{2}$
Barani Bhur	...	493	248	0 8 0	...	...	...
Total	...	6,323	9,556	1 8 2	...	180 164	$\frac{1}{2}$ $\frac{2}{5}$

TAHSIL BIYANA.

No. 7.—Statement of Tenures.

1	2	3	4	5	6	7	8	9	10	11	12	13
Tenures.	Leading tribes of owners.	No. of owners.			No. of proprietary holdings.	Total Area.	Cultivated area.	Jama in the past year.	No. of tenancy holdings.	No. of occupancy tenants.	No. of tenants-at-will.	Remarks.
		Residents.	Absentees and deserters.	Total.								
Zamindari joint ...	Jat Sinsinwar ...	329 67	101 18	420 85	151 105	13,016 7,453	8,038 4,486	9,320 ...	... ...	... ...	... ...	Kh. M.
Khalsa 30, Mañ 2 ...	Other Jats ...	381 219	123 75	507 294	103 30	17,569 6,749	8,174 4,800	7,724 ...	... ...	... ...	... ...	Kh. M.
Pattidari Imperfect ...	Rajput ...	271 ...	83 ...	354 ...	101 ...	56,650 117	14,947 73	16,484 ...	... ...	... ...	... ...	Kh. M.
Khalsa 8½, Mañ 8½ ...	Dhakars ...	607 43	108 21	605 64	255 24	9,220 1,890	5,993 704	11,120 ...	... ...	... ...	... ...	Kh. M.
Pattidari perfect ...	Gujar ...	5,933 120	378 21	5,411 150	1,718 61	2,08,448 4,208	70,520 2,810	1,01,749 5,732	... ...	... ...	... ...	Kh. M.
Khalsa 12, Mañ 2 ...	Brahman and Bagri...	550 203	248 11	607 214	216 13	31,408 2,741	15,470 1,891	23,257 ...	... ...	... ...	... ...	Kh. M.
Bhayachara perfect— Khalsa 3.	Mena ...	218 26	55 9	273 35	120 14	8,402 1,625	4,500 1,191	7,006 ...	... ...	... ...	... ...	Kh. M.
Bhayachara Imperfect Khalsa 22, Mañ 2.	Mali and Kachi	96 19	32 17	128 36	19 18	8,833 763	4,113 512	9,111 ...	... ...	... ...	... ...	Kh. M.
Pattidari Bhayachara— Khalsa 1, Mañ 1.	Gaddis ...	202 61	139 61	431 145	67 31	8,587 3,429	5,501 1,900	8,274 ...	... ...	... ...	... ...	Kh. M.
Kham 1½ ...	Shalkh, Pathan, Saiyad.	41 15	18 4	59 19	9 5	5,222 79	1,613 71	2,111 ...	... ...	... ...	... ...	Kh. M.
State property 1 ...	Others ...	59 103	14 12	73 115	17 26	2,075 2,107	1,234 1,489	1,775 ...	... ...	... ...	... ...	Kh. M.
Khalsa 152 Mañ 16 Total ... 163	Kham ...	...	...	...	...	4 7,303	1,027 3,000	...	...	...	...	Kh.
	State Property ...	...	...	...	...	2,601 40	...	...	...	...	...	Kh. M.
.....	TOTAL ...	7,788 905	4,090 262	11,877 1,157	2,773 319	4,70,432 39,701	1,42,000 19,006	2,05,973 ...	9,005 1,235	1,500 230	10,544 1,367	Kh. M.

Note.—Kh.=Khalsa, M.=Mañ.



# TAHSIL BIYANA.

No. 8.—Statement of Cattle, Carts, Population, etc.

No. 8.—Statement of Cattle, Carts, & Animals.																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Details.	Horses.	Ploughs.	Oxen.	Cows.	She-buffaloes.	He-buffaloes.	Sheep and Goats.	Horses.	Donkeys.	Mules.	Camels.	Total.	Carts.	POPULATION.								Grand Total.	
														CULTIVATORS.				NON-CULTIVATORS.					Total.
														Males.		Females.		Males.		Females.			
														Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.		
														Settlement Sambat 1947 =1893-91.	11,689	5,300	10,817	23,411	9,570	952	17,290		
Present Settlement	14,318	5,500	13,530	25,363	10,620	2,183	30,825	737	1,451	..	668	94,386	204	..	26,710	22,185	7,452	6,572	34,162	28,757	62,919		

1-42

TAHSIL BIYANA.

No. 9.—Statement showing details of wells, etc.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33																			
CHAHI OF MASO-NRY WELLS.				CHAHI OF KACHA WELLS, DIERS AND DHENKLIS.					MASONRY WELLS.															DIERS AT WORK.				DIENKLIS AT WORK.																							
Details,	PRESENT SETTLEMENT.		NOW.		LAST SETTLEMENT.				PRESENT SETTLEMENT.															PREMI- MENT.		TEMPO- RARY.																									
			Permanent.	Temporary.	Wells.				Working since last Settlement.	Old wells restored.	New wells sunk.	Not Working				Out of working.	Under construction.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.																				
					Wells.	Laos.	Working.	Not working.				Working.	Not working.	Working.	Not working.																	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.
	Last Settlement.	Former.	Present.	Last Settlement.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.																		
Kbala	43,557	6,501	32,076	9,821	6,076	1,378	1,000	...	1,033	...	2,640	...	316	1,706	...	63	...	58	...	1,776	186	2,210	129	361	13	613	47	21	...	25	...	...																			
Bia	...	1,210	5,886	...	521	213	109	...	301	...	429	...	48	2,891	...	61	...	81	...	274	31	365	33	41	41	0	1	...	3	...	...	...																			

No. 9-A.—Statement of wells by quality of water.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								
DETAILS.																								
MASONRY.																								
KHAM.																								
DHENKILS.																								
TOTAL.																								
REMARKS.																								



---

TAHSIL BHUSAWAR.

---

TAHSIL BHUSAWAR.

No. 1—Area Statement—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
Period.		UNCULTURABLE.										CHAKI.				CHAHU SAIRADA.			SAIRADA.				BARANI.			
		STATE RESERVES.			OTHERS.			Total uncultivated.	Other unassessable State property.	New fallow.	PERMANENT.		Temporary present.	Total.	Present.	Former.	Total.	Present.	Former.	Barishil.	Total.	Barani.	Bhur.	Total.		
		Bund.	Baoni.	Bhls.	Others.																					
Last settlement	...	22,725	...	365	1,913	863	3,060	...	...	4,771	7,020	2	...	7,022	...	...	...	...	474	...	...	474	8,303	...	8,303	Total.
Sambat 1055 = 1898-99	...	22,616	...	1,005	611	2,300	4,312	...	...	1,007	4,335	1,570	41	5,040	440	...	...	440	1,422	21	10	1,402	7,430	931	8,414	Total.
Difference	...	~1,070	...	+030	-872	+1,471	+1,252	...	...	-2,801	-2,085	+1,603	+41	-1,070	+440	...	...	+440	+019	+21	+19	+08	-078	+001	+10	Total.
Sambat 1050 = 1890-1900	...	22,621	...	1,005	637	1,861	3,933	...	...	1,744	4,410	1,754	68	0,238	514	...	...	514	1,220	179	15	1,420	7,841	932	8,773	Total.
Last settlement	...	3,74,610	4,458	...	83,809	29,127	1,17,361	205	...	55,033	70,369	10,029	...	80,398	...	...	...	...	5,386	943	...	0,329	1,09,840	...	1,08,910	Total.
Sambat 1055 = 1898-99...	...	3,74,003	4,458	...	44,358	37,554	1,40,928	265	...	25,100	61,032	10,599	780	69,417	2,098	0	2,894	482	0,505	502	437	10,931	1,03,356	19,307	1,22,957	Total.
Difference	...	-010	...	...	-1,804	+25,431	+23,537	...	...	-29,897	-19,737	+970	+780	-10,981	+2,988	+0	+2,904	+452	+4,509	-441	+437	+4,503	-5,403	+10,307	+13,811	Total.
Sambat 1050 = 1890-1900	...	3,74,003	4,458	...	41,398	37,317	60,224	1,30,337	205	27,350	49,873	10,750	1,407	69,090	4,141	82	4,223	375	0,708	1,000	236	8,010	1,00,701	20,923	1,27,624	Total.

TAHSIL BHUSAWAR.

No. 1—Area Statement—conold.

1	3	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	DEPTH.				45	46
Details.	Period.	Total cultivated.	GARDENS.			WELLS.										DHENKLIS.		MASONRY.		KHAM.		Remarks.
			Chabl.	Bairaba.	Barani.	Out of working.	MASONRY.				KHAM.				Permanent.	Temporary.	To water.	To water.	To water.	To water.		
							Wells.		Last.		Wells.		Last.									
							Working.	Not working.	Working.	Not working.	Working.	Not working.	Working.	Not working.								
	Last settlement	15,881	..	..	..	32	227	8	250	13	18	1	18	1	..	..	31	17	32	0		
	Sambat 1035 = 1898-99	10,208	H. S. 13 21	..	H. Bh. 53 13	29	211	31	263	50	88	8	89	8	4	1	32	15	34	0		
	Difference	+374	+13 +21	..	+53 +13	-3	-10	+23	+16	+37	+70	+7	+70	+7	+4	+1	+1	-3	..	..		
	Sambat 1035 = 1899-1000	10,915	H. S. 40 0	..	H. Bh. 47 13	25	223	23	283	37	106	25	100	25	2	..	..	..	..	..		
	Last settlement	2,01,673	..	..	657	482	2,355	40	2,018	117	431	22	431	22	3	..	..	..	..	..		
	Sambat 1035 = 1899-90	2,00,411	H. S. 37 41	25	H. Bh. 1,104 23	429	2,150	325	3,009	472	625	55	625	55	240	40	31	14	21	0		
	Difference	+4,811	+37 +41	+25	+467	-53	-169	+285	+201	+365	+101	+33	+101	+333	+243	+40	..	..	..	..		
	Sambat 1035 = 1899-1000	2,05,823	H. S. 73 21	20	H. Bh. 1,057 22	405	2,179	343	3,024	510	639	74	639	74	255	250	..	..	..	..		
Total.																						

MAZ.

TOTAL.

TAHSIL BHUSAWAR,

No. 1.—Area Statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
Details.	Period.	Total area.	UNCULTURABLE.				Old fallow.	Total uncultivated.	Other unassessable State property.	New fallow.	CHAHIL.			CHAHIL SAIRABA.			SAIRABA.				BARANI.			Total.		
			State reserves.	Others.		Permanent.					Former.	Temporary present.	Total.	Present.	Former.	Total.	Present.	Former.	Total.	Barani.	Bhor.					
				Bund.	Hills.																	Barani.				
	Last settlement	3,49,180	4,469	60,703		29,165	1,13,411	205	49,601	02,760	15,004		78,734						4,801	043				00,006		09,005
	Average of 6 years	3,49,308	4,468	76,123		30,021	1,10,203		53,477	59,893			59,893						3,001					1,17,201		1,17,201
	Sambat 1055-1895-00	3,49,223	4,459	43,333	35,531		52,065	1,31,510	203	23,110	49,691	15,371	738	62,901	2,543	0	2,548	462	8,473	481		418	0,372	04,000	18,301	1,12,001
	Difference	43		-1,811		+23,910	+22,699		-20,401	-10,039	-620		+738	-15,043	+2,542	+0	+2,549	+462	+3,670	-462		+418	+3,635	-4,076	+18,301	+13,320
	Sambat 1850 = 1890-1000	3,49,219	4,458	43,333	35,392		48,297	1,31,310	205	25,611	44,520	14,970	1,389	61,170	3,027	82	3,709	368	5,482	1,487		221	7,190	97,021	19,882	1,17,506
	Last settlement	9,014		840		60	920		061	599	33		632						19					783		783
	Sambat 1055 = 1898-00...	3,131			970		127	1,108		59	690	55	0	678				20						1,270	0	1,270
	Difference	+120		+139		+47	+180		-602	+7	+22	+9	+38					+20	-18					+487	+9	+486
	Sambat 1056 = 1890-1900	3,131			088		120	1,114		05	637	20	10	673				7						1,230	0	1,245





TAHSIL BHUSAWAR.

No. 1—Area Statement—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Period.	Total area.	UNCULTURABLE.						Total uncultivated.	Other unassessable State property.	New fallow.	CHAHIL.			CHAHIL SAIRABA.			SAIRABA.				BARANIL.				
		STATE RESERVES.		Others.		Present.	Former.				Temporary present.	Total.	Present.	Former.	Total.	Present.	Former.	Barishl.	Total.	Baranil.	Bhur.	Total.			
		Bund.	Bamul.	Hills.	Others.																				
Last settlement	23,725	...	...	355	1,913	892	3,000	...	4,771	7,920	2	...	7,022	...	...	...	474	8,308	...	...	8,308	...	...	...	8,308
Sambat 1035 = 1898-99	22,940	...	...	1,005	941	2,300	4,312	...	1,907	4,335	1,670	41	...	5,048	440	...	...	1,423	7,469	994	...	7,469	...	...	8,464
Difference	-1,075	...	...	+630	-872	+1,474	+1,232	...	-2,864	-2,665	+1,668	+41	...	-1,070	+440	...	+440	+918	-978	+994	...	-978	...	...	+10
Sambat 1020 = 1893-1900	22,921	...	...	1,005	937	1,801	3,833	...	1,714	4,410	1,754	08	...	6,238	514	...	...	1,220	7,431	933	...	7,431	...	...	8,773
Last settlement	3,74,910	4,468	...	83,800	...	29,127	1,17,301	205	55,033	70,360	10,029	...	...	80,398	...	...	...	5,350	1,09,819	...	...	1,09,819	...	...	1,09,840
Sambat 1055 = 1898-99...	3,74,903	4,468	...	44,358	37,554	51,568	1,40,928	205	25,100	51,032	10,000	780	...	69,417	2,988	0	2,094	482	0,805	1,03,386	10,307	...	1,03,386	...	1,22,687
Difference	-67	...	...	-1,804	...	+25,431	+23,637	...	-29,807	-18,737	+070	+780	...	-10,081	+2,988	+0	+2,994	+492	+4,500	-5,463	+10,307	...	-5,463	...	+13,911
Sambat 1050 = 1890-1900	3,74,903	4,468	...	44,338	37,317	50,221	1,30,337	205	27,350	40,873	10,760	1,407	...	68,090	4,141	82	4,223	375	0,708	1,00,701	20,823	...	1,00,701	...	1,27,521

1	2	27	28	29	30	31	32	33	34	35	36	37	39	30	40	41	DEPTH.			45	46							
Details.	Period.	Total cultivated.	GARDENS.			WELLS.										DRENKLIS.		MASONRY.			Of water.	Of water.	Of water.	Of water.				
			Chabl.	Salraba.	Baranl.	MASONRY.					KHAM.					Permanent.	Temporary.	To water.	To water.	To water.					To water.			
						Wells.		Lact.		Wells.	Lact.		Working.	Not working.	Working.											Not working.	Working.	Not working.
						Working.	Not working.	Working.	Not working.		Working.	Not working.																
MAY.	Last settlement	16,991	...	...	...	32	227	8	250	13	19	1	18	1	...	...	...	31	17	32	0							
	Sambat 1055 = 1899-90 ..	10,206	H. S. 13 21	...	H. S. 12 12	29	211	31	203	50	88	8	88	8	4	1	...	32	15	34	8							
	Difference	+374	+13 +21	...	+53 +12	-3	-10	+23	+16	+37	+70	+7	+70	+7	+4	+1	...	+1	-2	+2	...							
	Sambat 1056 = 1900-1900	16,915	H. S. 40 0	...	H. S. 13 13	25	223	23	282	37	106	25	106	25	2	...	...	...	...	...	...							
TOTAL.	Last settlement	2,01,573	...	...	657	482	2,325	40	2,018	117	431	22	431	22	3	...	...	...	...	...	...							
	Sambat 1056 = 1903-90 ..	2,00,411	H. S. 37 41	25	H. S. 22 22	420	2,160	525	3,009	472	625	55	625	55	240	40	...	31	14	21	0							
	Difference	+4,811	+37 +41	+25	+407	-53	-100	+286	+901	+355	+101	+53	+101	+333	+243	+40	...	...	...	...	...							
	Sambat 1056 = 1903-1900,	2,03,823	H. S. 73 21	26	H. S. 22 22	405	2,170	843	3,021	510	539	74	539	74	255	230	...	...	...	...	...							

## TAHSIL BHUSAWAR,

## No. 2—Crop Statement.

lxii

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
CHAHIL.																		
Details.	Kharif.								Rabi.									
	Cotton.	Barley.	Jowar.	Maslin.	Gawar charat.	Wht.	Others.	Total.	Wheat.	Barley.	Gram.	Bejar.	Goehul.	Gofra.	Olleeda.	Others.	Total.	Total of both crops.
Sambat 1948=1931-02 ...	17,707	...	...	...	...	...	313	18,980	10,173	26,410	...	1,303	...	771	80	4,024	47,838	66,010
Sambat 1949=1932-03 ...	14,993	...	...	...	...	...	438	15,430	17,733	23,730	...	2,204	1	90	233	4,937	49,980	64,822
Sambat 1950=1933-04 ...	10,224	...	...	...	...	...	373	10,597	18,247	21,793	122	1,841	...	...	436	9,300	61,328	73,025
Sambat 1951=1934-05 ...	19,627	...	...	...	...	...	491	10,018	18,844	20, 05	53	1,049	...	...	233	14,180	62,031	71,940
Sambat 1952=1935-06 ...	15,373	...	...	...	...	...	013	10,284	12,040	23,282	89	714	...	22	63	9,611	45,995	62,179
Sambat 1953=1936-07 ...	14,161	...	...	...	...	...	749	14,910	8,993	25,272	1	588	2	17	233	7,275	42,285	57,105
Sambat 1954=1937-08 ...	12,060	55	60	15	4	23	1,600	14,817	8,313	23,677	675	1,263	...	13	74	8,202	40,290	56,023
Average of 6 years ...	16,872	0	13	3	1	4	770	10,677	13,800	23,667	160	1,206	1	24	220	9,407	47,455	61,133
Sambat 1955=1938-09 ... {Khalasa...}	11,167	601	263	432	43	330	1,600	14,460	8,461	20,310	89	175	2	700	260	6,172	30,104	50,644
Sambat 1956=1939-00 ... {Mafi ...}	1,323	63	10	15	7	10	103	1,535	684	1,707	10	22	1	60	39	445	3,034	4,559
Sambat 1957=1940-01 ... {Khalasa...}	11,680	3,601	1,228	443	130	370	2,127	10,565	5,771	21,830	14	163	...	823	106	2,907	31,810	51,375
Sambat 1958=1941-02 ... {Mafi ...}	1,280	313	81	60	0	14	100	1,970	491	2,114	...	12	...	69	80	285	2,091	...

1	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CHAHU SAIRABA.

Details.	Kharif.						Rabi.								Total of both crops.			
	Cotton.	Basra.	Jowar.	Masina.	Garar charri.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Bejar.	Gochnl.	Gojra.		Olseeds.	Others.	Total.
Bambat 1049=1801-03	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambhat 1919 to 1957.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average of 6 years	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambat 1055=1809-09 ... { Khalsa...	61	23	0	1	3	2	10	08	027	005	09	04	82	276	23	181	2,284	2,383
	...	7	4	...	...	...	3	14	74	317	7	...	...	2	2	7	430	453
Sambat 1059=1800-1800 { Khalsa... Mud ...	97	33	90	10	14	13	85	357	677	1,904	24	70	60	246	30	200	3,410	3,787
	...	...	8	...	...	...	...	8	110	360	...	...	...	12	4	21	607	616

TAHSIL BHUSAWAR.

*No. 2—Crop Statement—contd.*

1	38	39	40	41	42	43	44	45	45	47	48	49	50	51	52	53	54	55
SAIRADA.																		
Details.	Kharif.							Rabi.										
	Cotton.	Bajra.	Jowar.	Masina.	Gawar charat.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Bajra.	Gochni.	Gojra.	Olseeda.	Others.	Total.	Total of both crops.
	...	...	...	...	...	...	...	...	550	523	1,007	1,470	171	213	1	3	4,012	4,912
	...	...	...	...	...	...	...	...	373	338	1,575	1,246	...	...	7	...	3,229	3,220
	...	...	...	...	...	...	...	...	457	316	1,168	537	...	...	5	29	2,656	2,656
	...	...	...	...	...	...	...	...	370	182	1,098	1,397	...	...	...	...	3,883	3,883
	...	...	...	...	...	...	...	...	268	392	131	109	...	...	...	97	970	970
	...	...	...	...	...	...	...	...	231	706	305	221	13	...	...	118	1,657	1,657
	...	...	...	...	...	...	...	...	214	440	2,633	1,063	...	...	1	44	6,105	6,003
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average of 6 years	1	70	53	4	6	...	1	135	319	409	1,220	019	2	...	2	48	2,016	3,651
Sambhat 1025=1809-00 { Kharif...	39	521	504	163	126	50	1	1,480	497	500	4,321	813	1,517	86	72	31	7,945	9,491
... { Maf ...	...	236	101	162	38	21	2	500	7	7	476	113	567	...	25	...	970	1,470
Sambhat 1050=1800-1000 { Kharif...	18	452	1,178	310	100	103	10	225	314	535	836	1,243	673	130	79	23	3,331	6,085
... { Maf ...	...	78	235	94	43	14	2	405	71	3	147	959	151	5	30	...	705	1,331

1	20	27	28	29	30	31	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
BARANI.																															
Details.	Kharif.														Rabi.																
	Cotton.	Dajra.	Jowar.	Masina.	Gauar charri.	TM.	Others.	Total.	Wheat.	Barley.	Gram.	Belar.	Gochni.	Gojra.	Sarson tara.	Others.	Total.	Total of both crops.													
Bambat 1019=1821-02	2,659	21,216	28,013	4,003	51,107	1,210	485	1,00,370	...	...	19,770	334	...	1	112	...	20,223	1,30,603													
Bambat 1019=1822-03	1,403	21,611	30,011	5,905	56,773	2,149	489	1,26,310	...	...	16,500	315	...	...	14	...	15,910	1,42,839													
Bambat 1020=1823-04	2,024	10,695	40,117	3,811	43,703	2,419	417	1,19,250	...	2	11,941	71	...	...	100	03	12,053	1,30,309													
Bambat 1031=1834-05	3,730	24,208	30,052	1,983	43,033	2,172	477	1,12,007	...	...	20,603	401	...	...	71	...	30,105	1,42,603													
Bambat 1062=1895-08	1,163	23,371	25,760	2,218	61,007	3,818	186	1,10,622	...	...	4,739	74	...	...	...	...	4,812	1,15,334													
Bambat 1063=1896-07	2,050	13,303	34,493	1,000	40,569	1,611	280	1,24,231	...	...	163	...	...	...	30	...	193	1,24,123													
Bambat 1054=1897-06	1,357	53,773	27,345	25,039	0,330	1,563	591	1,23,928	...	9	17,116	60	...	...	127	54	17,373	1,41,300													
Average of 6 years	2,223	31,825	34,008	0,017	41,307	2,339	400	1,10,416	...	2	13,185	165	...	...	68	10	13,420	1,32,844													
Bambat 1055=1895-09	090	53,401	29,320	30,509	10,350	4,027	560	1,34,132	...	10	4,761	4	...	...	18	1,080	5,899	1,40,331													
Bambat 1056=1895-09	01	3,760	3,138	3,046	051	346	38	10,320	...	2	401	...	...	...	...	04	407	10,826													
Bambat 1060=1899-1000	1,310	49,359	30,850	41,111	13,327	5,189	735	1,40,622	...	6	11	...	...	...	1	993	1,010	1,41,833													
Bambat 1060=1899-1000	133	3,835	2,523	3,300	1,220	410	50	11,167	...	10	...	...	...	...	...	50	00	11,260													

# TAHSIL BHUSAWAR.

## No. 4.—Statement of Sales and Mortgages.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
FROM 1855-1899.																	
FROM 1890-1899.																	
Details.	MORTGAGES.								SALES.								REMARKS.
	MORTGAGES.				SALES.				MORTGAGES.				SALES.				
	Cultivated.	Uncultivated.	Mortgage money.	Rate per bigda.	Cultivated.	Uncultivated.	Price.	Rs. A. P.	Cultivated.	Uncultivated.	Mortgage money.	Rate per bigda.	Cultivated.	Uncultivated.	Price.	Rate per bigda.	
			Rs.	Rs. A. P.			Rs.	Rs. A. P.			Rs.	Rs. A. P.			Rs.	Rs. A. P.	
To Zamindars of the same village	3,553	1,300	19,138	5 0 2	4,003	5,106	0,013	1 14 9	1,427	310	9,092	4 4 3	3,701	1,017	1,072	1 2 0	
To Zamindars of other villages...	318	30	920	2 14 3	4,203	3,081	5,732	1 5 6	681	102	1,078	1 0 11	1,389	010	780	0 0 0	
To moneylenders	2,037	1,370	11,017	5 0 11	3,271	1,978	4,010	1 8 0	670	68	2,022	3 14 0	1,237	630	3,148	2 8 5	
Total	6,837	2,019	31,075	5 5 0	12,406	11,455	20,255	1 10 0	2,707	480	9,702	4 1 0	4,330	2,847	5,000	1 5 9	



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
Details.	Total cultivated area.	Cultivated by owners.	BY TENANTS FREE OF RENT OR AT LESS THAN OWNER'S RATE.			AREA CULTIVATED BY OCCUPANCY TENANTS.			Details.	RENT IN KIND.						CASH RENT.			AREA HELD AND RENT PAID BY TENANTS-AT-WILL.						AVERAGE RENT PER ACRE.		Remarks.
			Rate of rent.	Less than owner's rate.		At owner's rate with or without Malikana.	At other cash rate.	Total.		Half or more.	One-third.	One-fourth.	Fixed.	Total area under cultivation.	Area.	Rupees.	By dhal bakh.		By other rent.	On area in column 18.	On area in column 20.	Total area held by tenants-at-will.	On area in column 18.	On area in column 20.			
				Area.	Rupees.												Area.	Rupees.							Area.	Rupees.	
Kharwa	Holdings	17,717	697	4	..	231	305	536	Chahl	1	14	144	..	156	4,063	15,884	22,707	60,344	27,889	Rs. A. P.	3 2 7	2 14 7	..	..	..		
	Area	1,80,303	6,003	13	..	1,003	2,303	4,200	..	63	58	4	41	103	654	1,987	2,154	5,031	2,673	..	2 14 0	2 5 0	..	..	..		
	Rupees	1,38,163	..	4	..	2,091	3,904	6,093	Chahl	..	..	23	..	23	..	768	1,051	2,700	1,347	..	3 10 0	3 10 0	..	..	..		
Jatwara	Holdings	186	27	..	..	1	..	1	Safaba	..	..	..	..	..	..	..	304	638	304	..	3 5 0	3 5 0	..	..	..		
	Area	1,009	122	..	..	3	..	3	Safaba	7	..	..	..	7	600	900	4,714	7,110	5,231	..	1 15 0	1 8 0	..	..	..		
	Rupees	2,857	..	..	..	2	..	2	..	..	..	..	..	..	20	40	607	985	830	..	1 0 0	1 3 0	..	..	..		
Mali	Holdings	1,613	79	..	..	35	0	41	Khadli	..	..	..	..	..	..	..	467	1,036	467	..	3 3 0	3 3 0	..	..	..		
	Area	10,367	403	7	..	213	100	323	..	..	..	..	..	45	42	47	143	153	233	..	1 3 0	1 1 0	..	..	..		
	Rupees	10,105	..	7	..	177	140	326	Barahi	..	..	..	..	..	0	15	..	..	0	..	1 11 0	..	..	..	..		
Total	Holdings	19,240	902	4	..	267	311	578	Barahi	57	23	206	..	286	9,070	10,024	67,510	61,019	77,478	..	1 0 0	0 14 0	..	..	..		
	Area	2,07,611	9,180	20	..	2,110	2,412	4,531	..	7	20	7	1	35	1,103	1,101	5,332	4,632	6,520	..	1 1 0	0 14 0	..	..	..		
	Rupees	1,43,217	..	11	..	2,203	4,053	6,310	Total	63	43	420	..	528	15,449	27,513	90,069	1,39,467	1,12,531	..	1 12 7	1 0 11	..	..	..		

## TAHSIL BHUSAWAR.

No. 2.—Crop Statement—condensed.

1	71	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	
Details.	TOTAL.																								
	Kharif.												Rabi.												
	Cotton.	Bajra.	Jowar.	Maslin.	Gauar charri.	Til.	Others.	Total.	Wheat.	Barley.	Gram.	Bejar.	Goehni.	Gojra.	Sarson tara.	Others.	Total.	Total of both crops.	Dofasli.	Total cultivated.	Chabl.	Chabl Sairaba.	Sairaba.	Barani.	
	Sambat 1049=1601-02	20,355	21,215	29,013	4,002	51,107	1,210	703	1,27,460	16,723	25,944	21,713	3,170	171	985	202	4,027	72,971	2,00,421	14,742	1,60,336	63,349	..	4,012	1,18,075
	Sambat 1049=1602-03	10,461	21,611	39,631	5,905	55,773	2,119	926	1,43,355	18,105	24,071	10,865	3,815	1	63	311	4,337	68,231	3,10,580	10,000	1,65,555	61,073	..	3,229	1,30,633
	Sambat 1050=1603-04	21,819	19,805	40,117	3,811	43,703	2,410	700	1,37,853	18,701	25,105	13,181	1,000	..	..	516	0,482	69,007	2,00,860	18,462	1,60,501	69,170	..	2,531	1,19,890
	Sambat 1051=1604-05	21,267	24,209	39,052	1,985	43,003	2,172	609	1,31,625	17,220	20,747	31,623	2,000	..	..	204	14,180	60,980	2,18,614	20,581	1,03,022	64,356	..	3,803	1,24,200
	Sambat 1052=1605-06	10,555	23,271	28,780	2,218	61,007	3,818	1,037	1,29,606	13,301	23,011	4,057	800	..	22	62	8,009	61,077	1,78,483	12,080	1,00,624	50,519	..	070	1,00,106
	Sambat 1053=1606-07	17,111	43,203	34,402	1,000	40,563	1,611	1,023	1,30,111	9,129	20,059	469	812	15	17	202	7,393	44,161	1,83,305	10,070	1,63,400	53,914	..	1,087	1,12,899
	Sambat 1054=1607-08	14,341	59,217	27,711	25,069	6,278	1,693	2,280	1,33,532	8,620	24,120	26,324	3,282	..	13	202	0,300	62,773	2,02,325	22,401	1,60,803	61,703	..	1,073	1,23,186
Average of 6 years	18,006	31,014	34,074	6,653	41,404	2,303	1,183	1,30,227	14,146	23,001	14,561	2,280	3	24	286	8,534	63,906	2,00,027	18,739	1,62,339	63,079	..	3,046	1,13,313	
Sambat 1055=1608-09	12,220	54,060	23,004	37,304	10,635	4,417	2,137	1,50,463	9,005	21,009	9,250	1,050	1,601	1,000	302	7,461	62,322	2,02,701	11,511	1,31,277	63,518	2,518	9,879	1,15,332	
Sambat 1055=1609-03	1,333	4,615	2,253	3,102	300	393	146	12,309	705	2,123	604	135	359	62	00	510	4,619	17,317	350	10,367	4,356	446	1,122	10,110	
Sambat 1056=1600-1000	13,100	52,415	33,001	42,220	13,531	5,670	2,063	1,63,009	6,302	24,275	884	1,405	732	1,100	305	4,212	40,001	2,03,000	10,062	1,33,007	61,066	3,706	7,601	1,10,561	
Sambat 1056=1600-1000	1,124	3,025	2,840	3,471	1,263	447	243	13,631	672	2,487	117	370	151	70	61	365	4,332	17,003	910	17,044	6,278	514	1,420	8,833	

141



TAHSIL BHUSAWAR.

No. 4.—Statement of Sales and Mortgages.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	FROM 1855-1859.								FROM 1860-1870.								
Details.	MORTGAGES.				SALES.				MORTGAGES.				SALES.				REMARKS.
	Cultivated.	Uncultivated.	Mortgage money.	Rate per bigha.	Cultivated.	Uncultivated.	Price.	Rate per bigha.	Cultivated.	Uncultivated.	Mortgage money.	Rate per bigha.	Cultivated.	Uncultivated.	Price.	Rate per bigha.	
				Rs. A. P.			Rs.	Rs. A. P.				Rs. A. P.			Rs.	Rs. A. P.	
To Zamindars of the same village	3,533	1,306	10,138	5 6 2	4,933	5,596	0,013	1 14 9	1,427	310	0,022	4 4 3	1,701	1,617	1,973	1 2 6	
To Zamindars of other villages	318	36	620	2 14 3	4,252	3,081	5,732	1 5 6	691	102	1,079	1 9 11	1,389	010	786	0 0 0	
To moneylenders	2,037	1,336	11,617	5 0 11	3,271	1,678	4,910	1 8 0	676	68	2,022	3 14 0	1,237	620	3,118	2 8 5	
Total	6,037	2,649	31,075	5 5 0	12,406	11,555	20,255	1 10 0	2,797	450	9,792	4 1 0	4,330	2,847	5,600	1 5 9	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Details.	Total cultivated area.	Cultivated by owners.	BY TAXING FROM OF RENT OR AT LESS THAN OWNER'S RATE.		AREA CULTIVATED BY OCCUPANCY TENANTS.				Details.	RENT IN KIND.						CASH RENT.				AVERAGE RENT PER ACRE.		REMARKS.				
			Less than owner's rate.	Rupces.	At owner's rate with or without Malikana.	Total.	RENT IN KIND.				CASH RENT.		CASH RENT.		On area in column 18.	On area in column 20.										
							Area.	Price of rent.		Half or more.	One-third.	One-fourth.	Fixed.	Total area under bail.			Area.	Rupces.	By that bail.	By other rent.						
Kharab	Holdings	17,717	5,520	697	4	...	231	305	636	{	1	14	144	...	160	...	...	4,003	16,694	22,707	60,344	Total area held by tenants-at-will.	Rs. A. P.	Rs. A. P.	Kh.	
	Area	1,40,309	69,331	5,603	13	...	1,003	2,303	4,200		63	59	4	41	105	...	...	854	1,887	2,164	5,021		3 3 7	2 14 7	M.	
	Rupces	3,07,298	1,38,188	...	4	...	2,081	3,804	5,098		...	...	28	...	...	...	...	...	...	768	1,051		2,700	27,889	2,073	3 5 0
Istamban	Holdings	...	15	27	...	...	1	...	1	{	...	...	...	...	...	...	...	...	...	...	...	1,347	2 10 0	2 10 0	Kh.	
	Area	1,050	860	123	...	...	3	...	3		Chahi	...	...	...	...	...	...	...	...	...	...	304	...	2 5 0	M.	
	Rupces	2,887	607	...	...	...	2	...	2		Satuba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Main	Holdings	1,643	607	78	...	...	35	0	41	{	...	...	...	...	...	...	...	...	...	467	1,038	467	...	3 3 0	...	
	Area	10,301	4,034	403	7	...	213	100	323		Satuba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rupces	10,165	4,552	...	7	...	177	140	320		Barishi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	Holdings	10,540	8,133	992	4	...	267	311	578	{	57	20	206	...	238	...	...	0,976	10,024	67,516	61,019	77,478	1 0 0	0 14 0	Kh.	
	Area	2,07,614	73,023	8,180	20	...	2,110	2,412	4,631		Barauli	...	...	...	...	...	...	...	1,103	1,101	5,393	4,632	6,620	1 1 0	0 14 0	M.
	Rupces	3,20,320	1,43,217	...	11	...	2,563	4,653	9,910		TOTAL	...	...	...	...	...	...	...	15,449	27,513	60,058	1,39,467	1,12,694	1 12 7	1 0 11	Kh.
											60	78	11	42	200	...	...	1,795	8,133	9,947	11,330	10,643	1 12 0	1 4 0	M.	

Note.—Ka—Kharab, M.—Main.

## TAHSIL BHUSAWAR.

No. 6.—Statement of rent by class of soil.

1	2	3	4	5	6	7	8
Details.	CASH RENTS.			OWNER'S SHARE OF CROPS.			REMARKS.
	Area.	Reot.	Rate per bigha.	Monial's share of crops.	Share.	Area.	
		Rs.	Rs. A. P.				
CHALIL.	Permanent present ...	22,300	64,491	2 14 0	...	1 14 144	
	Temporary present ...	454	627	2 0 0	...	...	
	Former ...	0,442	12,123	1 14 0	...	5 9 27	
CHALIL BAZAR.	Present ...	1,064	2,806	2 10 0	...	23	
	Former ...	2	3	1 6 0	...	...	
Khatili ...	467	1,036	2 3 6	...	...	...	
SHARANI.	Present ...	4,714	7,116	1 0 0	...	7	
	Former ...	260	300	1 7 0	...	10	
	Barishl ...	143	163	1 1 0	...	49	
BARANI.	Barani ...	50,063	43,064	0 13 0	...	53 20 153	
	Bhur ...	10,743	6,400	0 8 3	...	...	
	Total ...	66,459	1,69,457	1 6 0	...	65 35 420	

KHALSA.

## TAHSIL BHUSAWAR.

No. 6-A.—Statement of rent by class of soil—contd

1	2	3	4	5	6	7	8
Details.	CASH RENTS.			Ment's dues.	OWNER'S SHARE OF CROPS.		REMARKS.
	Area.	Rent.	Rate per Bigha.		Share.	Area.	
		Rs.	Rs. A. P.				
CHAIL.	Permanent present ...	2,115	4,001	2 5 0	...	1 62 2 68 2 4 (Fixed ... 41	
	Temporary present...	30	60	1 6 0	...	...	
	Former ...	937	1,040	1 12 0	...	1 7 2 4 2 7	
	Chahi Sakraba present	804	609	2 4 0	...	...	
SAMARA.	Present ...	807	935	1 3 0	...	...	
	Former ...	17	12	0 11 3	...	...	
	Barishi ...	...	...	...	...	...	
	Barani ...	3,023	2,770	0 11 3	...	1 16 (Fixed ... 1	
BARANI.	Dhur ...	500	201	0 0 6	...	...	
	Total ...	8,647	11,330	1 5 0	...	1 60 2 78 2 (Fixed ... 42	

## TAHSIL BHUSAWAR.

No. 7.—Statement of ownership by tribes and tenures.

1			2		3	4	5	6	7	8	9	10	11	
Tenures.			Leading tribes.		NUMBER OF OWNERS.		Number of proprietary holdings.	Total area.	Cultivated.	Jama in the past year.	Number of tenancy holdings.	Number of tenants.	REMARKS.	
					Present.	Absentees.								
Zamindari puro ... .. 1	Jat ... ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Khalsa.	Mafi.
		2,960	770	948	1,47,285	83,614	1,22,375	...	...					
		269	7	61	6,187	3,949	1,157	...	...					
Zamindari joint ... .. 20	Brahmans ... ..	879	263	301	36,761	24,395	33,098	...	...	Khalsa.	Mafi.			
		890	15	202	9,639	6,060	6,235	...	...					
Pattidari perfect ... .. 7	Gujars ... ..	1,145	286	422	83,055	32,605	42,903	...	...	Khalsa.	Mafi.			
		120	10	30	2,089	830	...	...	...					
Pattidari imperfect ... .. 102	Mina ... ..	542	65	269	24,844	16,500	24,535	...	...	Khalsa.	Mafi.			
		4	...	3	224	195	...	...	...					
Bhayachara perfect ... .. 1	State property ... ..	...	...	78	10,014	3,027	6,550	...	...	Khalsa.	Mafi.			
		...	...	3	16	...	...	...	...					
Bhayachara imperfect ... .. 1	Other ... ..	1,373	226	476	40,809	31,188	42,733	...	...	Khalsa.	Mafi.			
		259	12	133	4,233	3,313	149	...	...					
State property ... .. 4	Total ... ..	6,629	1,609	2,574	3,51,357	1,01,277	2,71,123	673	18,403	Khalsa.	Mafi.			
		1,041	41	332	22,616	16,367	7,541	...	...					
Total ... 140														



TAHSIL BHUSAVAR.

No. 8.—Statement of Cattle, carts and population.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
POPULATION.																						
CULTIVATORS.						NON-CULTIVATORS.						TOTAL.		Grand Total	REMARKS.							
Men.		Women.		Men.		Women.		Men.		Women.		Grand Total	REMARKS.									
Details.	Last settlement, Sambat 1917	13,473	4,837	9,603	20,923	0,300	1,003	10,203	441	319	"	155	40,251	111	20,080	10,003	13,609	11,331	34,191	27,913	62,197	
	Present settlement	"	16,789	5,973	14,786	24,010	11,223	3,074	18,920	611	1,733	137	70,523	400	32,042	29,102	4,650	4,013	37,498	33,205	62,703	

B-47

TAHSIL BHUSAVAR.

No. 9.—Statement of Wells, &c.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23								
Details,	MASONRY.						KHAM.						MASONRY WELLS.										DHER AND DHEKKLAS WORKING.		HMANNS.					
	PRESENT SETTLEMENT.						PRESENT SETTLEMENT.						SETTLEMENT, 1947.						PRESENT SETTLEMENT.							Under construction.	Permanent.	Temporary.		
	Last Settlement.						Last Settlement.						Working.						Not working.										Out of working.	Out of working.
	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.	Former.	Present.								
Khaba	75,373	14,150	41,679	7,371	1,840	4,850	778	2,100	2,801	450	1,908	171	05	1,015	2,743	423	400	15	820	48										
Mad	6,104	1,422	8,956	824	203	905	41	235	274	83	220	0	11	311	31	200	50	20	2	101	1									

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
		MASONRY.										KHAM.					TOTAL AREA.					
Details.	Walls.					Arch.					Wells.					Arch.					Remarks.	
	Hills.		Isot.			Permanent.					Working.		Not working.			Present.		Former.				Temporary.
	Working.	Not working.	Working.	Not working.	Present.	Former.	Temporary.	Working.	Not working.	Present.	Former.	Temporary.										
Erect	1,411	220	1,050	814	11,713	82,480	480	783	40	1,744	4,405	188	13,457	30,075	613	61,076	Kh.					
	171	25	212	43	1,323	3,217	83	04	8	203	903	8	1,515	4,122	40	5,077	M.					
Oily	102	22	127	31	701	2,320	83	5	...	...	...	15	1800	2,284	43	9,132	Kh.					
	3	1	3	2	50	117	...	...	...	...	...	...	56	117	...	173	M.					
Hard	123	8	235	7	930	8,510	23	6	...	...	...	...	650	9,500	23	4,281	Kh.					
	12	1	10	1	72	234	...	...	...	...	...	...	72	234	...	300	M.					
Brackish	81	15	124	21	313	1,705	...	3	...	...	...	...	842	1,711	...	2,053	Kh.					
	0	...	0	...	90	81	1	...	...	...	...	...	30	84	1	121	M.					
Bitter	233	31	917	50	713	5,029	53	81	2	59	233	12	771	5,200	61	6,005	Kh.					
	10	4	24	5	90	237	...	...	...	...	...	...	30	237	...	273	M.					
Total	1,015	204	2,743	423	11,150	41,079	553	827	49	1,940	4,850	210	10,020	40,820	779	60,030	Kh.					
	211	81	203	50	1,422	3,850	33	06	9	203	905	8	1,715	4,704	41	6,550	M.					

Notes.—Kh. = Khaka. M. = Mad.

NOTE.—Kh. = Khates. M. = Mad.



---

APPENDIX A.

Rainfall.

---

## APPENDIX A.

*Rainfall of Tahsils Rupbas, Oochain and Biyana,*

lxxviii

Name of month.	Tahsila.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	Total.	Average.	1899-1900.
April ...	Rupbas	...	...	70	...	10	...	...	...	...	12	...	...	...	92	07	05
	Oochain	...	...	...	...	...	...	...	...	...	2	...	...	...	20	02	70
	Biyana	...	...	...	20	...	...	...	...	...	03	...	...	...	23	02	23
May ...	Rupbas	10	...	...	...	...	30	165	...	...	...	...	23	29	347	27	52
	Oochain	04	...	...	...	...	...	170	175	72	21	...	11	10	469	36	182
	Biyana	04	...	...	30	...	50	40	...	42	02	10	...	34	212	16	47
June ...	Rupbas	227	08	01	50	650	03	56	58	536	180	219	163	26	2177	107	1539
	Oochain	300	...	170	110	600	...	106	108	318	55	200	276	476	2719	209	1323
	Biyana	290	...	04	130	1030	...	56	166	427	471	250	310	329	3514	270	1532
July ...	Rupbas	150	159	990	710	930	287	578	69	420	782	486	868	1114	8893	684	855
	Oochain	99	138	765	390	470	73	611	1105	434	378	332	930	1210	9128	702	759
	Biyana	1110	1600	1140	695	625	270	774	1835	606	783	440	890	1328	12096	931	828
August ...	Rupbas	530	1290	1110	1570	630	1156	743	540	1496	452	228	662	594	11061	851	29
	Oochain	53	1340	780	1470	710	1581	509	494	1279	518	301	755	723	10990	845	48
	Biyana	360	740	1020	2290	375	1910	1224	239	2188	465	100	900	677	12488	961	14
September ...	Rupbas	...	250	590	...	340	1592	780	459	270	108	13	645	67	5174	398	64
	Oochain	...	306	350	...	290	1399	746	190	339	130	150	398	142	4470	344	18
	Biyana	...	508	340	...	160	1580	881	335	471	112	...	250	60	4697	361	...

Total 6 months ...	Rupbas ...	Oochain ...	Biyana ...	24-17	17-07	27-61	23-30	25-60	30-68	23-22	11-26	27-22	15-94	9-46	23-61	18-30	277-44	21-34	25-44
October ...	Rupbas ...	Oochain ...	Biyana ...	18-54	30-26	20-65	19-70	20-70	30-63	21-42	20-72	24-42	11-22	9-83	24-30	25-67	277-96	21-38	24-00
				17-64	28-48	25-04	32-25	21-90	38-10	29-75	25-75	37-34	18-36	8-00	23-41	24-28	330-30	25-41	24-44
	Rupbas ...	Oochain ...	Biyana ...	0-40	...	0-60	...	...	...	...	...	...	...	...	...	...	1-00	0-08	...
	Rupbas ...	Oochain ...	Biyana ...	0-30	...	...	...	...	1-00	...	40	...	...	...	0-03	...	2-93	0-23	...
				...	...	...	...	...	1-10	...	30	...	...	...	58	...	2-58	0-20	...
November ...	Rupbas ...	Oochain ...	Biyana ...	0-40	...	...	...	...	...	...	...	...	...	...	...	...	1-00	0-08	...
	Rupbas ...	Oochain ...	Biyana ...	...	...	20	...	...	...	...	41	...	...	34	...	...	0-95	0-07	...
				...	...	...	...	...	...	...	50	...	...	43	...	...	0-93	0-07	...
				...	...	60	...	...	...	...	54	...	...	10	...	...	1-24	0-10	...
December ...	Rupbas ...	Oochain ...	Biyana ...	...	...	...	...	20	...	80	...	1-22	13	30	...	39	3-04	0-23	...
				...	...	...	...	...	...	86	79	2-00	11	46	...	...	4-22	0-32	...
				...	...	...	...	...	...	05	...	1-24	...	20	...	09	1-58	0-12	...
January ...	Rupbas ...	Oochain ...	Biyana ...	...	...	1-40	20	...	50	73	55	1-32	2-40	...	30	...	7-54	0-58	0-06
				...	...	80	30	...	20	30	1-47	1-13	33	18	...	...	4-91	0-38	0-14
				...	...	40	...	...	40	10	2-00	1-02	...	01	...	...	5-48	0-42	...
February ...	Rupbas ...	Oochain ...	Biyana ...	...	...	90	1-10	...	...	...	25	...	56	25	...	...	2-96	0-23	...
				...	...	10	60	...	...	...	82	...	40	...	...	...	1-92	0-15	...
				...	...	70	...	...	...	...	...	2-10	...	...	2-87	...	5-97	0-46	...
March ...	Rupbas ...	Oochain ...	Biyana ...	...	...	50	...	20	1-00	...	22	...	16	...	...	...	2-03	0-16	...
				...	...	...	...	...	1-40	...	15	21	45	12	...	...	2-37	0-18	...
				...	...	...	...	20	...	...	...	1-20	...	...	...	...	3-90	0-30	...
Total 6 months ...	Rupbas ...	Oochain ...	Biyana ...	...	...	3-30	2-10	40	2-50	1-53	1-83	2-51	2-89	89	33	39	19-50	1-50	0-06
				...	...	90	90	...	2-70	1-16	4-03	3-31	1-29	1-19	58	...	16-93	1-30	0-14
				...	...	2-30	20	2-50	40	1-15	2-54	5-56	...	31	2-87	09	19-17	1-48	...
Total year ...	Rupbas ...	Oochain ...	Biyana ...	24-47	17-57	30-91	25-40	26-00	33-18	24-75	13-09	29-76	18-83	10-35	23-94	18-69	296-94	22-84	25-50
				19-18	30-46	24-55	20-60	20-70	33-23	22-58	24-75	27-76	12-51	11-02	24-88	25-67	294-89	22-68	24-14
				18-51	29-83	27-34	32-45	24-40	38-50	29-90	28-20	42-90	18-36	8-31	10-40	24-37	349-47	26-89	24-11

## APPENDIX A--contd.

Rainfall of Tahsil Bhusavar.

Name of month.	Tahsil.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	Total of 13 years.	Average.	1899-1900.
April ...	{ Bhusavar ... Weir ...	...	...	...	...	...	...	...	...	...	.24	.03	...	...	.27	.02	...
May ...	{ Bhusavar ... Weir ...	1.07	...	...	.25	...	.70	.28	.46	...	.09	.29	.16	.24	3.49	.27	1.37
June ...	{ Bhusavar ... Weir ...	1.40	.05	.19	2.00	8.20	...	.74	1.98	2.33	1.63	4.06	1.85	2.34	26.77	2.06	6.84
July ...	{ Bhusavar ... Weir ...	2.80	.02	.08	2.10	7.85	.10	.20	1.45	4.48	3.13	2.42	2.88	1.92	29.43	2.26	9.18
August ...	{ Bhusavar ... Weir ...	14.05	13.45	11.30	11.05	4.70	5.63	5.48	11.78	7.42	4.61	5.36	10.06	8.14	113.03	8.69	7.58
September ...	{ Bhusavar ... Weir ...	6.70	12.30	5.70	16.75	4.30	9.30	11.45	2.68	20.19	4.71	3.93	4.28	20.72	123.01	9.46	.75
Total for six months...	{ Bhusavar ... Weir ...	5.00	12.20	10.60	22.90	5.85	9.84	19.79	3.08	12.58	5.13	4.90	8.66	11.43	132.05	10.16	.34
October ...	{ Bhusavar ... Weir ...	15	2.06	3.90	.30	4.05	21.11	6.87	2.58	3.76	.55	.76	2.73	.11	48.93	3.77	...
		1.40	5.04	4.80	.10	3.40	18.06	9.09	2.80	5.47	.47	.04	2.28	.27	53.32	4.10	...
		23.37	27.86	21.09	30.30	21.25	36.74	24.82	19.48	33.70	11.83	14.43	19.08	31.55	315.50	24.27	16.56
		19.52	30.26	27.68	31.15	24.10	32.48	34.57	20.89	28.37	11.94	13.39	22.53	27.64	324.52	24.96	18.76
		.70	...	.60	...	...	.22	.45	...	...	...	...	.04	...	2.01	.15	...
		.40	...	.30	...	...	.34	.05	...	.10	...	...	...	...	1.19	.09	...



[illegible]



---

APPENDIX B.

Crop Experiments.

---

*Statement showing*

[illegible]

periments.

Name of Tahsil.			Name of year.	CHAHIL.						SAIRABA.						BARANI.				NARRI OR KHATILI (N=NARRI KH=KHA-TILI.)	
				PRESENT.		CHAHIL SAIRABA.		CHAHIL FORMER.		PRESENT.		FORMER.		BARISHI.		BARANI.		BHUR.			
				Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.		
Bhusawar	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	3	5.3	...	...	20	3.3	2	3	...	...	...	...	17	3.7	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rupbas	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	...	...	...	...	4	2.0	4	3	...	...	...	...	2	2.7	8	2.7	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	6	1.2	...	...	...	...
Oochain.	...	...	1954	...	...	...	...	8	3.1	...	...	...	...	...	10	2.6	10	2.4	...	...	...
			1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Biyana	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	...	...
Bhusawar	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	...	...	...	...	...	...	...	...	...	...	...	...	2	1.3	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rupbas	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	...	...	...	...	2	4	4	7	...	...	...	...	4	1.2	2	1	...	...
			1956	...	...	...	...	...	...	4	2	...	...	...	...	3	2	...	...	...	...
Oochain	...	...	1954	...	...	...	...	1	2	...	...	...	...	...	3	5	...	...	...	...	...
			1955	...	...	...	...	2	2.2	...	...	1	4.2	...	...	1	1.3	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Biyana	...	...	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...



DIX B.

crop experiments.

Crops.	Name of Tahsil.	Name of year.	CHAHIL.				SAIRABA.				BARANI.				NAME OF TAKHIL (N=NAHRI KH=KHA- TILL.)				
			PRESENT.		CHAHIL SAIRABA.		CHAHIL FORMER.		PRESENT.		FORMER.		BARISHI.			BARANI.		BHU.	
			Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.		Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.
Bajra.	Bhusawar	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	3	5.3	...	...	20	3.8	2	3	...	...	...	...	17	3.7	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	...	...	...	...	4	2.0	4	3	...	...	...	...	2	2.7	8	2.7	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	9	1.2	...	...	
	Oochain.	1954	...	...	...	...	8	3.1	...	...	...	...	...	...	10	2.0	10	2.4	
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bijana	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	
Till.	Bhusawar	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	...	...	...	...	...	...	...	...	...	...	...	...	2	1.3	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	...	...	...	...	2	4	4	7	...	...	...	...	4	1.2	2	1	
		1956	...	...	...	...	...	...	4	2	...	...	...	...	3	2	...	...	
	Oochain	1954	...	...	...	...	1	2	...	...	...	...	...	...	3	5	...	...	
		1955	...	...	...	...	2	2.2	...	...	1	4.2	...	...	1	1.3	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bijana	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1956	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

Statement showing.

Crops.	Name of Tahsil.	Name of year.	CHAHIL.						SAIBADA.						BARANI.				NAHRI OR KHATILI (N=NAHRI KH=KHATILI.)	
			PRESENT.		CHAHIL SAIBADA.		CHAHIL FORMER.		PRESENT.		FORMER.		BARISHI.		BARANI.		BHUR.			
			Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.		
Sugarcane.	Bhusawar	1054	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		1056	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1054	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1056	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Oochain	1054	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	...	...	1	17½	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1056	...	...	1	9½	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Biyana	1054	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1056	...	...	1	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wheat.	Bhusawar	1054	6	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	31	7·6	4	8·4	...	...	1	5·6	...	...	...	...	...	...	...	...	...	...
		1056	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rupbas	1054	6	4·2	...	...	...	...	5	2·2	...	...	...	...	...	...	...	...	...	...
		1055	9	2·3	...	...	...	...	5	2·7	...	...	...	...	...	...	...	...	...	...
		1056	6	10·7	...	...	...	...	4	7·6	...	...	...	...	...	...	...	...	...	...
	Oochain	1054	10	5·8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	14	7	...	...	...	...	2	6·8	...	...	...	...	...	...	...	...	...	...
		1056	7	6·80	...	...	...	...	1	6·10	...	...	...	...	...	...	...	...	N. 1 Kh. 1	6·8 8·7
	Biyana	1054	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1055	23	7·3	...	...	...	...	1	4·8	...	...	...	...	...	...	...	...	...	...
		1056	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

N. 1 6.9  
Kh. 1 8.7



[illegible]

*Statement showing*

[illegible]

DIX B.—concluded.

crop experiments—concluded.

Crops.	Name of Tahsil.	Name of year.	CHAHIL.						SAIRABA.						BARANI.				NAHRI OR KHAYILI (N=NAHRI KH=KHA- YILI).
			PRESENT.		CHAHIL SAIRABA.		CHAHIL FORNZE.		PRESENT.		FORMER.		BARISHIL.		BARANI.		BHR.		
			Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	Number of experiments.	Average produce in maunds.	
Ochhal.	Bhusawar	1955	...	...	...	...	...	...	2	5.6	...	...	...	...	...	...	...	...	...
	Rupbas	1955	...	...	...	...	...	...	3	1.3	...	...	...	...	...	...	...	...	
	Oochain	1955	...	...	...	...	...	...	2	1.3	...	...	...	...	...	...	...	N.1 5.8	
	Biyaun	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zira (sunh seed).	Bhusawar	1954	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1955	12	1.9	1	3.5	...	...	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Oochain	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Biyaun	1954	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kachil.	Bhusawar	1955	1	6.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Oochain	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Biyaun	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Masina.	Bhusawar	1955	...	...	...	...	2	1.8	1	1.1	...	...	...	...	1	...	...	...	
	Rupbas	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Oochain	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Biyaun	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Malze.	Bhusawar	1955	1	6.9	...	...	1	1.35	...	...	...	...	...	...	...	...	...	...	
	Rupbas	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Oochain	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Biyaun	1955	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	



---

APPENDIX C.

Showing prices.

---



Tahsil.	Sambat.	Details.	Kharif.					Rabi.						
			Cotton.	Bajra.	Jwar, maize.	Musina.	Til.	Wheat.	Barley.	Gram.	Oil seeds.	Bejar.	Gojra.	Gochni.
Rajpura.	1890-91 to 1899-90	{ Harvest Bazar	10	24	25	18	10	22	30	25	...	28	...	...
			11	24	22	18	9	20	29	26	18	..	...	
Rajpura.	1890-91 to 1899-90	{ Harvest Bazar	10	24	27	17	10	20	28	27	...	26	...	...
			11	22	26	14	10	17	23	21	19	...	...	
Gochni.	1890-91 to 1899-90	{ Harvest Bazar	12	26	28	22	12	20	27	25	15	...	...	...
			12	20	21	20	9	17	24	24	12	...	...	
Gochni.	1890-91 to 1899-90	{ Harvest Bazar	12	22	25	21	11	20	27	26	13	...	...	...
			12	21	23	18	9	17	24	23	13	...	...	
Bijara.	1890-91 to 1899-90	{ Harvest Bazar	12	23	23	23	10	20	26	24	13	25	...	...
			11	20	21	20	9	17	24	24	12	...	...	
Bijara.	1890-91 to 1899-90	{ Harvest Bazar	14	22	23	21	11	18	25	22	13	24	...	...
			13	21	23	18	9	17	24	23	13	...	...	
Bijara.	1890-91 to 1899-90	{ Harvest Bazar	11	28	30	27	13	23	33	33	16	...	...	...
			10	24	25	25	10	20	29	29	14	...	...	
Bijara.	1890-91 to 1899-90	{ Harvest Bazar	11	25	31	25	12	23	32	32	15	...	...	...
			9	23	25	24	11	20	27	25	13	...	...	





---

APPENDIX D.

Statement showing Produce estimate of Tahsil Rupbas.

---



# APPENDIX D.

Statement showing Produce estimate of Tehsil Rupbas.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Sols.	Details.	Kharif.										Rabi.																	
		Cotton.	Bajra.	Jawar.	Maize.	Mashua.	Gawar charri.	Til.	Bugarana.	Tobacco.	Vegetables.	Carrots.	Others.	Total.	Wheat.	Barley.	Gram and peas.	Bajra.	Gochnl.	Gofra.	Sarson.	Tobacco.	Vegetables.	Zira (cumin seeds).	Carrots.	Others.	Total.	Total of both crops.	
Present.	Area ..	457	13	7	..	8	1	23	35	41	38	1	183	800	1,273	2,784	23	20	1	383	159	83	70	2,004	91	551	7,519	8,325	
	Rate ..	31	5	4	..	21	..	21	Rs. 20	Rs. 30	Rs. 12	..	10	..	71	8	7	81	71	8	2	Rs. 30 p. b.	Rs. 13	Rs. 12	..	10	..	..	
	Produce ..	1,000	00	29	..	20	..	69	..	..	..	..	..	..	9,517	22,372	190	170	8	3,061	318	..	..	..	..	..	..	..	
Former.	Area ..	200	3,120	50	..	17	40	90	..	56	31	..	31	3,050	..	..	..	..	..	..	..	..	..	..	..	..	..	3,650	
	Rate ..	3	4	4	..	21	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Produce ..	400	12,510	221	..	43	..	160	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Chahl Saltrab.	Area ..	600	2,777	390	..	93	201	323	..	8	5	..	59	4,450	0	22	02	8	12	2	80	1	..	..	..	18	211	4,070	
	Rate ..	21	4	4	..	21	..	2	..	..	..	..	..	..	41	41	3	3	3	3	1	..	..	..	..	..	..	..	
	Produce ..	1,522	11,109	1,550	..	233	..	610	..	..	..	..	..	..	40	90	180	21	38	6	80	..	..	..	..	..	..	..	
Chahl Saltrab.	Area ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Rate ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Produce ..	..	..	..	..	..	..	..	..	..	..	..	..	..	48,80	5,121	602	51	06	459	102	..	..	..	..	..	..	..	
Chahl Saltrab.	Area ..	5	90	1	..	..	3	2	..	..	..	..	..	100	..	..	..	..	..	..	..	..	..	..	..	..	..	160	
	Rate ..	21	4	3	..	..	..	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Produce ..	12	331	3	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

# APPENDIX D—*contd.*

Statement showing Produce estimate of Tahsil Rupbas—*contd.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Sols.	Details.	Kharif.														Rabi.													
		Cotton.	Bajra.	Jawar.	Maize.	Mahua.	Gauar charal.	Til.	Sugarcane.	Tobacco.	Vegetables.	Carrots.	Others.	Total.	Wheat.	Barley.	Gram and peas.	Hajar.	Goehni.	Sarson.	Tobacco.	Vegetables.	Zira (gumli seeds).	Carrots.	Others.	Total.	Total of both crops.		
Sakra present together with former chad and sakada present.	Area	30	491	69	...	0	05	83	...	...	...	...	17	770	1,390	055	030	301	17	558	885	1	...	37	...	01	4,920	6,699	
	Rate	21	4	3	...	21	...	21	...	...	...	...	...	...	41	5	5	5	5	5	2	...	...	...	...	...	...	...	
	Produce	60	1,921	171	...	231	...	208	...	...	...	...	...	...	0,251	4,775	4,003	1,035	655	2,700	770	...	...	...	...	...	...	...	
Khatil	Area	...	...	...	...	...	...	...	...	...	...	...	...	...	111	140	...	...	...	3	6	...	...	...	1	272	273		
	Rate	...	...	...	...	...	...	...	...	...	...	...	...	...	41	5	...	...	...	6	2	...	...	...	...	...	...		
	Produce	...	...	...	...	...	...	...	...	...	...	...	...	...	513	745	...	...	15	10	...	...	...	...	...	...	...		
Former Sakra	Area	001	5,657	1,394	...	100	512	1,833	...	...	1	...	49	10,009	83	203	600	215	8	...	252	...	...	...	69	1,450	11,407		
	Rate	2	3	3	...	21	...	2	...	...	...	...	...	...	41	4	3	3	3	...	2	...	...	...	...	...	...		
	Produce	1,922	15,168	4,191	...	423	...	3,660	...	...	...	...	...	...	374	812	1,500	735	21	501	...	...	...	...	...	...	...		
Sakra Baridil	Area	...	80	5	...	...	7	6	...	...	...	...	12	110	1	35	60	17	11	...	...	...	...	...	20	150	278		
	Rate	...	21	3	...	...	...	2	...	...	...	...	...	...	31	4	3	3	2	...	...	...	...	...	...	...	...		
	Produce	...	223	15	...	...	...	12	...	...	...	...	...	...	4	140	207	51	22	...	...	...	...	...	...	...	...		
Baridil	Area	1,501	23,178	5,910	...	3,017	2,111	5,176	...	56	31	...	60	41,019	7	210	1,041	70	57	11	602	...	...	...	295	3,116	44,733		
	Rate	2	21	21	21	...	...	2	...	...	...	...	...	...	8	4	3	3	3	3	11	...	...	...	...	...	...		
	Produce	3,602	57,015	14,519	...	0,001	...	10,352	...	...	...	...	...	...	21	880	4,012	237	171	33	1,203	...	...	...	...	...	...		

[illegible]



---

APPENDIX D.

Statement showing Produce Estimate of Tahsil Biyana.

---





# APPENDIX D.

Statement showing Produce Estimate Tahsil of Bijana.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Boils.	Details.	Kharif.														Rabi.													
		Cotton.	Rajra.	Jawar.	Maize.	Mashra.	Gawar Charri.	Til.	Sugarcane.	Tobacco.	Vegetables carrots.	Others.	Total.	Wheat.	Barley.	Gram and peas.	Majar.	Cochul.	Gofra.	Sarson.	Poppy.	Tobacco.	Vegetables.	Zira (fennil seeds).	Carrots.	Others.	Total.	Total of both crops.	
CHAUH.	Irrigated.	Area ...	670	103	201	253	30	204	18	51	101	415	13,075	6,001	12,518	159	20	17	653	530	20	200	170	3,085	147	180	25,016	38,001	
		Rate ...	5	4	0	21	...	21	Rs. 30 p. b.	Rs. 30 p. b.	Rs. 12 p. b.	Rs. 10 p. b.	...	71	81	7	81	8	8	2	20	Rs. 30 p. b.	Rs. 12 p. b.	Rs. 15 p. b.	...	Rs. 10 p. b.	...	...	
		Produce ...	2,850	772	1,704	633	...	660	...	...	...	...	...	52,208	1,03,400	1,113	247	136	5,564	1,078	...	...	...	...	...	...	...	...	
		Area ...	735	200	...	101	421	71	...	...	10	64	12,241	...	...	...	...	...	...	10	...	...	...	...	...	...	...	16	12,500
CHAUH.	Unirrigated.	Area ...	4	4	...	21	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Rate ...	2	4	...	403	...	112	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Produce ...	1,470	1,010	...	637	600	228	...	...	18	37	7,309	17	33	258	2	...	...	...	25	...	...	...	...	...	...	...	
		Area ...	1,108	757	20	637	600	228	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
CHAUH.	Fountain.	Area ...	2	4	4	21	...	2	...	...	...	...	...	43	43	3	3	...	...	1	...	...	...	...	...	...	...	...	
		Rate ...	2	4	4	21	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Produce ...	2,210	3,188	101	1,303	...	450	...	...	...	...	...	77	110	771	0	...	...	...	25	...	...	...	...	...	...	...	
		Area ...	61	20	14	4	...	...	...	1	7	...	107	1,015	1,170	137	68	...	281	117	...	5	19	57	25	8	2,855	2,003	
CHAUH.	Irrigated.	Area ...	31	5	6	21	...	...	...	...	...	...	...	81	11	71	0	...	81	2	...	...	...	...	...	...	...	...	
		Rate ...	214	100	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Produce ...	31	132	25	4	...	...	...	...	...	...	...	9,013	12,100	1,028	522	...	2,414	291	...	...	...	...	...	...	...	...	
		Area ...	31	132	25	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
CHAUH.	Unirrigated.	Area ...	21	4	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Rate ...	21	4	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Produce ...	21	4	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Area ...	21	4	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

# APPENDIX D.—contd.

Statement showing Produce Estimate Tahsil of Bigana—contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Bols.	Details.	Kharif.														Rabi.												
		Cotton.	Barley.	Jawar.	Maize.	Meslin.	Gavari charli.	Thi.	Euglacene.	Tobacco.	Vegetables carots.	Others.	Total.	Wheat.	Barley.	Gram and peas.	Dejar.	Gochni.	Gojra.	Sarson.	Poppy.	Tobacco.	Vegetables.	Zira, (cumin seeds).	Carrots.	Others.	Total.	Total of both crops.
Sairabi present together with former Chaut and Sairaba present.	Area	201	2,103*	557	18	602	407	101	..	..	7	28	4,114	2,330	2,505	2,632	1,708	401	429	806	..	..	189	27	7	50	10,953	14,073
	Rate	2½	4	3	3	2½	..	2½	..	..	..	..	..	4½	5	5	5	5	5	2	..	..	..	..	..	..	..	..
	Produce	503	8,378	1,701	54	10,655	..	253	..	..	..	..	..	10,835	12,535	13,100	8,940	2,005	2,145	1,212	..	..	..	..	..	..	..	..
Khatili	Area	..	..	..	..	..	..	..	..	..	..	..	..	325	225	5	..	..	0	0	..	..	5	11	..	..	580	580
	Rate	..	..	..	..	..	..	..	..	..	..	..	..	6	8	5	..	..	7	2	..	..	..	..	..	..	..	..
	Produce	..	..	..	..	..	..	..	..	..	..	..	..	1,950	1,800	25	..	..	03	12	..	..	..	..	..	..	..	..
Former Sairaba	Area	150	1,670	231	..	582	410	155	..	..	12	..	3,510	19	43	61	15	3	..	..	20	..	..	..	..	..	176	3,692
	Rate	2½	4½	8	..	2½	..	2	..	..	..	..	..	4½	4	3½	3	3	..	..	2	..	..	..	..	..	..	..
	Produce	390	7,615	603	..	2,205	..	310	..	..	..	..	..	80	172	214	45	3	..	59	..	..	..	..	..	..	..	..
Sairaba Biraui	Area	0	605	429	..	279	84	33	..	..	..	6	1,451	213	119	75	27	..	..	30	..	..	12	..	..	..	470	1,937
	Rate	2	3	3	..	2½	..	2	..	..	..	..	..	4	4½	3½	3	..	..	2	..	..	..	..	..	..	..	..
	Produce	12	1,815	1,317	..	693	..	..	..	..	..	..	..	852	530	203	81	..	..	60	..	..	..	..	..	..	..	..
Biraui	Area	1,152	20,410	5,827	97	10,674	5,338	2,123	..	1	70	369	61,070	..	108	1,157	33	5	..	57	..	..	36	..	..	21	1,460	62,550
	Rate	2	3	3	3	2½	..	2	..	..	..	..	..	..	4	3	3	3	..	1½	..	..	..	..	..	..	..	..
	Produce	2,304	52,832	17,191	291	14,203	..	4,556	..	..	..	..	..	..	673	3,471	90	15	..	86	..	..	..	..	..	..	..	..



# APPENDIX D--contd.

Statement showing Produce Estimate of Tahsil Oochain--contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
S. No.	Details.	Kharif.										Rabi.										Remarks.						
		Cotton.	Jowar.	Maize.	Muslin.	Gauar charri.	Til.	Sugarcane.	Tobacco.	Vegetables carrots.	Others.	Total.	Wheat.	Barley.	Gram and peas.	Beljar.	Gochni.	Gojra.	Sasson.	Tobacco.	Vegetables.		Zira (cumin seed).	Carrots.	Others.	Total.	Total of both crops.	
Safaha present together with former Chahid and Safaha present.	Area ..	209	6,001	1,122	..	933	1,624	670	..	..	25	31	10,644	4,655	2,071	5,020	7,311	3,051	2,060	1,687	..	..	271	110	77	27,110	37,221	
	Rate ..	24	4	3	..	24	..	24	..	..	..	..	..	44	5	5	5	5	2	..	..	..	..	..	..	..	..	
	Produce ..	673	24,004	3,360	..	2,333	..	1,600	..	1,600	..	..	..	20,918	14,855	25,130	30,570	15,255	10,315	3,174	..	..	..	..	..	..	..	..
Khatill .. ..	Area ..	..	..	..	..	..	..	..	..	..	..	..	..	89	129	..	24	..	10	0	..	..	..	..	1	207	200	
	Rate ..	..	..	..	..	..	..	..	..	..	..	..	..	44	5	..	5	..	5	2	..	..	..	..	..	..	..	
	Produce ..	..	..	..	..	..	..	..	..	..	..	..	..	390	640	..	120	..	50	18	..	..	..	..	..	..	..	
Former Safaha .. ..	Area ..	635	7,507	911	..	1,160	1,281	2,700	..	..	6	31	14,316	..	4	75	4	..	..	61	..	..	..	..	8	165	14,601	
	Rate ..	2	3	3	..	24	..	2	..	..	..	..	..	..	4	34	3	..	..	2	..	..	..	..	..	..	..	
	Produce ..	1,330	22,791	2,733	..	2,875	..	6,412	..	..	..	..	..	..	16	203	12	..	..	128	..	..	..	..	..	..	..	
Safaha Barisht .. ..	Area ..	28	178	4	..	81	69	10	..	..	..	3	360	2	71	41	..	..	3	1	..	..	..	..	..	118	487	
	Rate ..	2	3	3	..	24	..	2	..	..	..	..	..	34	4	34	..	..	3	2	..	..	..	..	..	..	..	
	Produce ..	60	631	12	..	203	..	32	..	..	..	..	..	7	251	144	..	..	0	2	..	..	..	..	..	..	..	
Barail .. ..	Area ..	1,003	10,371	5,417	..	11,512	4,560	1,893	..	..	..	117	41,018	..	5	1,009	31	70	..	60	..	..	..	..	10	1,109	42,217	
	Rate ..	2	24	3	..	24	..	2	..	..	..	..	..	..	4	3	3	3	..	14	..	..	..	..	..	..	..	
	Produce ..	2,100	45,029	16,251	..	29,855	..	3,706	..	..	..	..	..	..	20	3,027	95	237	..	84	..	..	..	..	..	..	..	



## Appendix D.

*Statement showing Produce estimate of Tahsil Oochain.*

[illegible]

---

APPENDIX D.

Statement showing Produce Estimate of Tahsil Bhusawar.

---

[illegible]





Soils.	Details.	KHARIF.											
		Cotton.	Rajra.	Jawar.	Masina.	Gawar charil.	Til.	Tabacco.	Sugar-cane.	Vegetables.	Carrots.	Others.	Total.
BALDAGAR.	Sairaba former ...	Area ...	2	78	6	92	41	9	...	...	...	...	228
		Rate ..	2	2½	3	2½	...	2	...	...	...	...	...
		Produce ...	4	105	18	203	...	18	...	...	...	...	...
	Sairaba Parishi ...	Area ...	...	47	...	...	1	...	...	...	...	...	49
		Rate ...	...	2½	...	...	...	...	...	...	...	...	...
		Produce ...	...	118	...	...	...	...	...	...	...	...	...
	Barani ...	Area ...	11	2,632	618	3,170	611	100	...	...	...	9	6,631
		Rate ...	2	2½	3	2½	...	2	...	...	...	10	...
		Produce ...	22	6,330	1,654	7,925	...	300	...	...	...	80	...
	Dhur ...	Area ...	...	1,237	9	3,095	230	27	...	...	...	4	4,593
		Rate ...	...	2	3	1½	...	1½	...	...	...	10	...
		Produce ...	...	2,454	18	4,628	...	41	...	...	...	40	...
BRUSAVAR.	Total ...	Area ...	2,621	6,648	732	6,695	1,162	173	2	...	21	6	213
		Produce ...	6,620	10,817	2,386	13,477	...	312	60	...	252	...	2,130
	Deduction on account of failure of crops kharif 8 per cent.— Rabi { Chahi 4 per cent. Barani 8 " "		...	...	...	...	...	...	...	...	...	...	...
	Balance ...	...	760	1,565	101	1,082	...	27	6	...	20	...	170
		...	...	...	...	...	...	...	...	...	...	...	...
	Balance ...	...	9,041	18,233	2,105	12,305	...	316	65	...	232	...	1,060
		...	...	...	...	...	...	...	...	...	...	...	...
	Fodder deduction masina 25 per cent. Barley and Barson 5 per cent. Gawar charil and Carrots whole.		...	...	...	3,099	...	...	...	...	...	...	...
	Balance ...	Mds. ...	9,043	18,232	2,105	9,206	...		...	...	...	...	...
		Rate per Re. {	11 seers.	27 seers.	30 seers.	25 seers.	...		...	...	...	...	...
	Price ...	...	32,684	27,010	2,027	14,674	...	1,145	65	...	232	...	1,060
BRUSAVAR.	Chahi ...	Area ...	8,207	675	217	346	31	317	61	6	227	678	424
		Rate ...	3½	6	4	2½	...	2½	30	20	12	...	10
		Produce ...	28,724	2,875	998	865	...	768	1,020	100	2,724	...	4,210
	Barani ...	Area ...	41	5,375	80	20	280	62	1	...	2	...	63
		Rate ...	3	4	4	2½	...	2	30	...	12	...	10
		Produce ...	88	21,600	320	72	...	121	30	...	24	...	630

dix D—contd.

of Tahsil Bhusawar—contd.

BANY.															REMARKS.
Wheat.	Barley.	Gram.	Dejar.	Gechnl.	Cojra.	Sarson tara.	Tobacco.	Poppy.	Zira.	Vegetables.	Carrots.	Others.	Total.	Total both crops.	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	7	...	...	...	...	...	...	...	...	...	...	7	...	
...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	9	...	...	...	...	...	...	...	...	...	83	91	...	
...	...	3	...	...	...	...	...	...	...	...	...	10	...	...	
...	...	27	...	...	...	...	...	...	...	...	...	820	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
1,107	2,230	22	15	...	07	45	53	137	820	49	164	08	...	...	
6,985	20,070	82	120	...	536	90	1,690	2,740	12,435	576	...	800	...	...	1,33,700. Chahl. Other. 80,737 43,073 10,941 + 11,725 31,659
359	603	5	5	...	21	3	61	110	404	23	...	71	...	...	
8,026	10,267	77	115	...	515	67	1,526	2,630	11,911	553	...	859	...	...	
...	963	...	...	...	...	4	...	...	...	...	...	...	...	...	
8,620 21 seers.	18,304 30 seers.	77 30 seers.	115 30 seers.	...	515 26 seers.	83 14 seers.	1,526	2,630	11,911	553	...	859	...	...	
16,430	24,405	103	153	...	702	237	1,626	2,630	11,911	553	...	859	59,659	1,40,746	
7,086	17,847	82	160	3	637	150	510	31	3,655	204	355	51	39,650	7,037 1,33,703	
74	9	7	8	71	8	2	30	20	15	12	...	10	...	...	
63,145	1,67,623	674	1,250	15	5,006	259	15,450	620	51,075	2,443	...	540	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

1,33,700.  
 Chahl. Other.  
 80,737 43,073  
 10,941 + 11,725  
 31,659

State share

Mandal's dues.  
Balance.

DHUSAWAR—continued.														KHARIS.													
Soils.			Details.																								
						Cotton.	Bajra.	Jawar.	Meslin.	Gauar charul.	Til.	Tobacco.	Sugarcane.	Vegetables.	Carrots.	Others.	Total.										
CHAHIL.	Former	Area	...	516	0,090	2,631	979	1,213	450	...	...	...	...	...	...	97	12,565										
		Rate	...	2	4	4	2½	...	2	...	...	...	...	...	12	...	10	...									
		Produce	...	1,032	27,860	10,521	2,447	...	920	...	...	...	...	...	24	...	970	...									
	Chahil	Area	...	6	22	2	...	...	...	...	...	...	...	...	...	...	2	29									
		Rate	...	3½	6	4	...	...	...	...	...	...	...	...	12	...	10	...									
		Produce	...	23	110	6	...	...	...	...	...	...	...	...	21	...	20	...									
	Chahil Sairaba	Area	...	51	23	9	1	2	2	...	...	...	...	...	3	4	3	63									
		Rate	...	3½	6	4	2½	...	2½	...	...	...	...	...	12	...	10	...									
		Produce	...	176	115	36	3	...	6	...	...	...	...	...	36	...	30	...									
	Sairaba	Area	...	...	72	...	1	...	...	...	...	...	...	...	...	...	...	73									
		Rate	...	...	4	...	2½	...	...	...	...	...	...	...	...	...	...	...									
		Produce	...	...	283	...	3	...	...	...	...	...	...	...	...	...	...	...									
	Barani	Area	...	...	72	...	1	1	...	...	...	...	...	...	...	...	...	74									
		Rate	...	...	4	...	2½	...	...	...	...	...	...	...	...	...	...	...									
		Produce	...	...	283	...	3	...	...	...	...	...	...	...	...	...	...	...									
	Chahil Sairaba former	Area	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	3									
		Rate	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...									
		Produce	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...									
Khatili.	Area	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1										
	Rate	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...										
	Produce	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...										
Sairaba present.	Sairaba	Area	...	39	390	591	162	120	26	...	...	...	...	...	...	1	1,354										
		Rate	...	2½	4	4	2½	...	2½	...	...	...	...	...	...	10	...										
		Produce	...	95	1,560	2,364	380	...	140	...	...	...	...	...	...	10	...										
	Barani	Area	...	1	122	272	50	43	14	...	...	...	...	1	...	...	493										
		Rate	...	2	2½	3	2½	...	2	...	...	...	...	12	...	...	...										
		Produce	...	2	305	810	76	...	23	...	...	...	...	13	...	...	...										

dix D—contd.

of Tahsil Bhusawat—contd.

BANK.															REMARKS.
Wheat.	Barley.	Gram.	Dejra.	Gochml.	Golja.	Saron tara.	Tobacco.	Poppy.	Zira.	Vegetables.	Carrots.	Others.	Total.	Total both crops.	
...	4	872	...	...	...	18	...	...	...	...	...	23	917	...	
...	41	3	...	...	...	1	...	...	...	...	...	10	...	...	
...	18	2,016	...	...	...	18	...	...	...	...	...	230	...	...	
50	57	3	...	...	2	2	19	...	22	28	...	...	177	...	
71	0	7	...	...	8	2	30	...	16	12	...	...	...	...	
375	513	21	...	...	16	4	390	...	330	330	...	...	...	...	
012	018	09	61	82	275	20	...	7	60	27	30	4	2,176	...	
8	9	7	81	8	9	2	...	20	15	12	...	10	...	...	
4,808	8,202	478	511	856	2,175	40	...	110	1,035	321	...	40	...	...	
...	...	4	...	...	...	...	...	...	...	...	...	...	4	...	
...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	3	...	...	...	...	...	...	...	...	...	...	3	...	
...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	
76	375	...	7	...	3	1	...	...	...	...	...	...	402	...	
41	5	...	5	...	5	2	...	...	...	...	...	...	...	...	
312	1,875	...	35	...	16	2	...	...	...	...	...	...	...	...	
421	214	3,317	800	1,517	82	71	...	...	1	4	...	23	7,459	...	
41	5	5	5	5	5	2	...	...	15	12	...	10	...	...	
1,591	1,070	21,553	4,030	7,555	410	112	...	...	15	48	...	203	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

Soils.	Details.	KHARIF.											
		Cotton.	Maize.	Jowar.	Masina.	Gawar charul.	Til.	Tobacco.	Sugarcane.	Vegetables.	Carrots.	Others.	Total.
Sairaba former	Area ...	13	110	62	18	17	10	...	...	...	...	...	233
	Rate ...	2	2½	3	2½	...	2	...	...	...	...	...	...
	Produce ...	26	203	156	45	...	39	...	...	...	...	...	...
Sairaba Barishi ...	Area ...	32	113	36	10	4	1	...	...	...	...	...	205
	Rate ...	2	2½	3	2½	...	2	...	...	...	...	...	...
	Produce ...	64	252	108	49	...	2	...	...	...	...	...	...
Barani ...	Area ...	321	23,170	23,920	21,619	6,741	2,091	...	...	...	...	354	84,427
	Rate ...	2	2½	3	2½	...	2	...	...	...	...	10	...
	Produce ...	642	70,417	71,970	54,620	...	5,054	...	...	...	...	3,510	...
Bhur ...	Area ...	24	6,541	220	6,890	757	230	...	...	...	...	29	13,722
	Rate ...	1½	2	2	1½	...	1½	...	...	...	...	10	...
	Produce ...	36	11,052	442	10,335	...	381	...	...	...	...	280	...
Total ...	Area ...	9,255	47,597	29,160	30,914	9,249	4,171	65	5	237	252	972	1,30,632
	Produce ...	30,615	1,37,126	87,042	69,590	...	8,397	1,050	100	2,841	...	9,720	...
Deduction for failure of crops													
Kharif. 8 per cent													
Rabi { Chahi 4 per cent													
Barani 8 per cent													
...		2,473	10,070	7,036	5,611	...	672	150	6	229	...	777	...
Balance ...	...	28,442	1,26,156	80,006	63,982	...	7,725	1,794	92	2,616	...	8,943	...
Fodder deduction masina 25 per cent													
Barley sarson Gawar-charri and Carrots whole. { 5 per cent													
...		...	...	...	16,840	...	...	...	...	...	...	...	...
Balance ...	Mds. ...	28,442	1,26,156	80,006	47,539	...	7,725	1,794	92	2,616	...	8,943	...
	Rate per Re. ...	11	27	30	25	...	11	...	...	...	...	...	...
Price ...	...	1,03,425	1,66,597	1,07,874	76,062	...	29,090	1,794	92	2,616	...	8,943	6,25,793

dix D.

of Tahsil Bhusawar—concl'd.

## Rabi.

Wheat.	Barley.	Gram.	Dejar.	Gochini.	Gofra.	Sarson tam.	Tobacco.	Poppy.	Zira.	Vegetables.	Carrots.	Others.	Total.	Total both crops.	REMAINS.
...	20	...	...	...	...	...	...	...	...	...	...	...	20	...	
...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	78	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	11	143	4	...	...	...	...	...	...	...	...	...	153	...	
...	4	3	3	...	...	...	...	...	...	...	...	...	...	...	
...	44	429	12	...	...	...	...	...	...	...	...	...	...	...	
...	1	3,690	...	...	...	...	...	...	...	...	...	065	4,662	...	
...	4	3	...	...	...	...	...	...	...	...	...	10	...	...	
...	4	11,088	...	...	...	...	...	...	...	...	...	0,650	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	10	10	...	
...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	100	...	...	
8,245	10,427	9,214	1,041	1,601	099	302	629	39	3,757	263	416	1,092	46,914	...	
60,652	1,72,409	36,596	6,001	6,256	8,012	596	15,870	760	50,335	3,166	...	10,520	...	...	
2,502	6,912	2,000	397	631	337	30	635	30	2,255	129	...	842	...	...	
59,160	1,65,467	33,987	5,604	7,622	7,076	536	16,235	730	51,100	3,029	...	9,078	...	...	
...	8,273	...	...	...	...	...	27	...	...	...	...	...	...	...	
59,160	1,67,194	33,987	5,604	7,622	7,076	536	15,235	730	51,100	3,029	...	9,078	...	...	
seers.	seers.	seers.	seers.	...	seers.	seers.	...	...	...	...	...	...	...	...	
21	30	30	30	...	26	11	...	...	...	...	...	...	...	...	
1,10,771	2,09,592	45,316	7,338	11,727	11,605	1,511	15,235	730	51,100	3,029	...	9,078	4,71,131	9,66,927	
													Mentals. due.	47,516	
													Balance	9,47,061	
													Chabl.	4,91,711	
													State Share	1,09,222	
															Other. 4,55,370 + 1,21,132 = 5,76,502





# GLOSSARY OF VERNACULAR TERMS.

[BHARATPUR REPORT.]

## B

Bachh or dhanl baohh	...	Method of distributing revenue.
Bajra	...	Spiked millet.
Band	...	Irrigation dam.
Banjar	...	Waste land.
Barani	...	Dry, unirrigated land dependent on rain.
Barha	...	A revenue on the excess area found in the possession of a mafidar.
Baroja	...	20 to 40 <i>palis</i> taken together.
Batai	...	Weighment of the gathered grain. Rent in kind.
Bejar	...	Gram and barley mixed.
Ber	...	A wild plum.
Bhait or nazar	...	A present or offering from inferior to superior.
Bhayachara	...	Land held by possession without reference to shares.
Bhnr	...	Sandy land.
Bigha	...	A measure of land equal to $\frac{5}{8}$ th of an acre.
Bigheri	...	Rent per bigha.
Bihar	...	Sandy upland covered with dense jungle.
Biswa	...	A measure of land = $\frac{1}{2}$ th of a bigha. A share in a village or estate.
Biswadari	...	Right to property or share in an estate.

## C

Chahor	...	Stiff blackish clay usually fertile.
Chahi	...	Land irrigated from <i>pukka</i> or <i>kacha</i> wells.
Chakk	...	An assessment circle.
Chakiri	...	Service.
Chanda	...	Contribution or present to some religious institution.
Charri	...	Jawar sown close.
Chauth	...	A form of tennro in which the landholder pays one-fourth of the assets to the State as revenue.
Cháwila	...	A small grain.
Chhut	...	A reduction of revenue.
Choha	...	A hole dug in the sand.

## D

Dahr	...	A depression.
Dastak	...	A writ of demand.
Dahri	...	Naturally flooded land.
Dam	...	A coin = $\frac{1}{10}$ Re.
Dami	...	Patwar cess.
Dhenkli	...	Small and temporary <i>kacha</i> well, which lasts only one harvest.
Dher ( <i>kacha</i> well)	...	A temporary well, made without masonry.
Diwan	...	A minister of State.
Dofasli	...	Double cropping.
Darbar	...	Administration of a Native State.

## G

Gandar	...	... Thatching grass—grows in low marshy lands.
Gawar	...	... A coarse grain grown for fodder.
Gharra	...	... An earthen pot for carrying water.
Ghi	...	... Clarified butter.
Goehni	...	... Wheat and gram mixed.
Gojra	...	... Wheat and barley mixed.
Gol	...	... Never regularly partitioned ; joint.

## H

Hakk mukaddami	...	... A percentage by the State to lambardars on the revenue paid in by them.
Honna or mehndi	...	... A plant, the leaves of which are used for dyeing hands, nails, etc.

## I

Inam	...	... A grant from the State.
Istamrar	...	... Permanently settled.
Iwaz khidmat	...	... Commutation for service.

## J

Jagir	...	... Assignment of land revenue.
Jagirdar	...	... One who holds a <i>jagir</i> .
Jaidad	...	... <i>Khalsa</i> assessment assigned to persons of position.
Jama	...	... Land revenue assessment.
Jawar	...	... Groat millet ( <i>Sorghum vulgare</i> ).
Jhalar	...	... A small well dug on the banks of streams or tanks for utilising their water.

## K

Kadim	...	... Culturable waste.
Kallar	...	... Clayey soil impregnated with saline matter.
Kankūt	...	... Appraisalment of the yield of the standing crops.
Kansa	...	... A maintenance grant.
Katha	...	... Catechn.
Karbi	...	... Dried bajra stalks.
Kangiarī	...	... Smut.
Kasba	...	... A town.
Khalsa	...	... Revenue realised by State as opposed to revenue due to assignees.
Kham (tahsil)	...	... Direct management of estates by tahsil.
Khara	...	... Bitter (water).
Kharif	...	... The autumn harvest.
Khatauni	...	... A register of cultivating holdings.
Khewat	...	... A register of proprietary holdings.
Khndkasht	...	... Cultivation carried on by the owner himself.
Kungi	...	... Rust.

## L

Lag punchri	...	... A tax levied on the grazing of goats and camels.
Lakh	...	... One hundred thousand.
Lambardar	...	... A village headman.
Lao	...	... A well rope.
Lawaris	...	... Unclaimed.

## M

Mafi	...	...	Assignment of land revenue.
Mafidar	...	...	Holder of a <i>mafi</i> .
Malba	...	...	A cess for defraying village expenses.
Malikana*	...	...	Profit rent. A rent charge paid to proprietors over and above the revenue.
Malmala	...	...	Brackish (water).
Man	...	...	A measure of weight=82½ lbs.
Masina	...	...	<i>Moth</i> or <i>mung</i> mixed with <i>jawar</i> , <i>bajra</i> , <i>til</i> , etc.
Mowat	...	...	The country of Meos.
Moth	...	...	A pulse ( <i>Phaseolus acanthifolius</i> ).
Majrai	...	...	Lambardari dues.
Mung	...	...	A pulse ( <i>Phaseolus mungo</i> ).
Munsarim or kanungo	...	...	An official who supervises Patwari's work.

## N

Nadi	...	...	A small stream.
Nala	...	...	A drainage line or channel of a river.
Nath	...	...	Childless. Nath rule being a rule by which (grants of) land belonging to childless persons was resumed by the State.
Nankar or chakiri	...	...	Money grant from State to lambardars, etc.
Nazarana	...	...	Summs paid by revenue assignees to the State in recognition of their grant.
Nikasi	...	...	Net assets.

## P

Pahi kasht	...	...	Cultivation carried on by outside tenants.
Pala	...	...	Dwarf <i>ber</i> used for fodder.
Pali	...	...	A double row of light sticks, up which the <i>pan</i> plant is trained like a creeper.
Pargana	...	...	A revenue sub-division.
Pan	...	...	Betel leaf.
Pathraura	...	...	Well made of loose stone, generally undressed and without mortar.
Patta	...	...	A written lease.
Patti	...	...	A division of a village.
Pattidari	...	...	Land held by shares ancestral or customary.
Patwari	...	...	Village accountant.
Pukka	...	...	A building made of burnt brick or stone.
Parohit	...	...	A Brahmin priest.
Pula	...	...	A sheaf. A high jungle grass.
Pun arth	...	...	Grant to temples or other religious and charitable institutions.

## R

Rabi	...	...	Spring harvest.
Rund	...	...	Fuel and fodder reserve belonging to the State.

## S

Sadar munsarim	...	...	An official who supervises Munsarim's work.
Sairaba	...	...	Flooded land.
Sambat	...	...	<i>Bikrami</i> era of Hindus beginning 57 B.C.
Sarson or sarshaf	...	...	An oilseed.

Sarkanda or kans	...	Junglo grass.
Ser	...	A measure of weight=2 lbs. (40 <i>seers</i> =a maund).
Singhara	...	Water-nut.
Solah kotris	...	16 houses allied to the ruling family of Bharatpur, being all descended from Badan Singh, the founder of the State.

## T

Takavi	...	An advance by the State for agricultural purposes.
Talbana	...	Process fee.
Tamboli	...	A vendor of <i>pan</i> or a grower of <i>pan</i> .
Tara mira	...	An oilseed.
Thakur	...	A general name for Rajput landholders.
Theka	...	A contract or lease.
Til	...	An oilseed ( <i>Sesamum orientale</i> ).

## W

Wajib-ul-arz	...	Village administration paper.
--------------	-----	-------------------------------

## Z

Zabti	...	Cash rent per bigha.
Zamindar	...	A landholder.
Zamindari bilijmal	...	Land held by a body of owners.
Zamindari khalis	...	Land held by a single owner.
Zira	...	Cumin seed.

No. 3961, dated the 8th August 1900.

From—The Political Agent, Eastern Rajputana States,

To—The First Assistant to the Agent to the Governor-General in Rajputana.

In continuation of correspondence ending with your No. 1890-G., of 5th May 1900, I have the honour to invite a reference to the assessment report of the four southern tahsils, Rupbas, Oochain, Biyana and Bhusawar of the Bharatpur State recently written by the Settlement Commissioner, Alwar and Bharatpur. An advance copy of this report has, I understand from Mr. M. F. O'Dwyer, been forwarded direct to you for the information of the Honourable the Agent to the Governor-General.

2. The Bharatpur State Council has discussed with me the various points on which orders are required by the Settlement Commissioner, noted in paragraph 137 of the report. The proposal made in paragraph 59-A to remit the sum of Rs. 5,05,639 out of total arrears, from 1890-91 up to date, of Rs. 6,24,139 leaving only Rs. 1,18,500 to be recovered from these tahsils, seemed to the Council so very lenient including as it did a remission of nearly three-fourths out of a suspension of revenue made only last October, that they hesitated to adopt this suggestion, fearing that such liberal remissions of arrears, as had been made during the course of the settlement capped by the remission of a large portion of the recent suspension, would have the effect of encouraging the zemindars to accumulate arrears in the hope that after a few years such arrears would again be wiped out as irrecoverable and that such action taken with regard to the four tahsils under reference, would involve similar action in the other tahsils of the State.

3. In response to a telegram from me bringing the doubts entertained by the Council to Mr. O'Dwyer's notice, he has suggested that a certain amount of the arrears—the amount to be fixed by him before giving out the new assessment—should be realised by instalments. This amount will probably be larger than proposed in paragraph 59 of his report. The rest of the arrears should not be formally remitted, but should remain in arrears to be collected in whole or in part, if future harvests allow. The remaining tahsils to be similarly treated.

4. The Council, though they consider that this suggestion practically arrives at the same end as that proposed in paragraph 59, yet see that it does not hold out the same encouragement to zemindars to accumulate arrears, and at their request I have telegraphed to the Settlement Commissioner saying they agree to his proposal.

5. The Council and I agree to all the other proposals made by the Settlement Commissioner and noted in paragraph 137 of his report. We would suggest that the dates of revenue instalments might be fixed in the Hindi rather than the English calendar, as the former is better understood and more familiar to the zemindars than the latter.

6. The Council desire again to place on record their keen sense of the obligation the State owes to Mr. O'Dwyer for the untiring energy, perfect sympathy and admirable thoroughness which he has bestowed upon the work of the settlement of this State.



No. 3539-G., dated Abu, the 17th August 1900.

From—The HON'BLE LIEUTENANT-COLONEL W. H. C. WYLLIE, C.I.E., Agent to the Governor-General in Rajputana,

To—The Secretary to the Government of India, Foreign Department.

With reference to the correspondence ending with Foreign Department letter No. 1749 I.A., dated 23rd April 1900, regarding the current settlement operations in the Bharatpur State, I have the honour to submit, for the information and orders of the Government of India, a copy of the papers noted in the margin, which contain Mr. O'Dwyer's proposals for the assessment of the remaining four tahsils\* and the jagir of Ballabgarh, and the views expressed thereon by the Political Agent and the State Council.

2. The system followed in the re-assessment of these tahsils is practically the same as that observed for the eight tahsils which have been settled, and calls for no further description.

3. Mr. O'Dwyer's recommendations are summarised in paragraphs 121 and 122 of his report, and are compared with the present *khalsa* demand in the table below :—

Tahsils.		Present jama.	Proposed jama.	Increase or decrease.	Incidence per bigha.		
					Rs.	A.	P.
Rupbas	...	1,05,855	1,11,000	+ 5,145	1	4	8
Oochain	...	1,72,705	1,87,000	+ 14,295	1	8	0
Biyana	...	2,05,972	2,17,000	+ 11,028	1	7	10
Bhusawar	...	2,36,480	2,36,000	— 480	1	5	3
Jagir of Bullabgarh	...	34,643	36,000	+ 1,357	1	10	3
Total	...	7,55,655	7,87,000	31,345	1	7	2

4. The total increase proposed is Rs. 31,345 or 4 per cent.; but if the proposed *khalsa* demand, which includes the water-rates and certain cesses, is compared with the present *khalsa* demand plus the water-rates and cesses now levied aggregating Rs. 7,84,151, the net increase is only Rs. 2,849 or 5 per cent. This enhancement is small, but the Settlement Commissioner considers (*vide* paragraph 123 of his report) that his assessment is fair both to the State and to the cultivator and the State Council concur in this opinion.

Mr. O'Dwyer adds that the figures given by him are only approximate, and that when the village assessments are announced, the total demand may vary by 1 or 2 per cent.

5. Mr. O'Dwyer's proposals for the abolition of miscellaneous cesses (paragraph 110), the assessment of *sairaba* lands (paragraph 116), the taxation of mango and other fruit trees (paragraph 80), the leasing of culturable waste (paragraph 74), the rates of *Malba* and for the term of settlement (paragraph 121) (which will be 20 years as in the other tahsils) are all accepted by the State Council. The Council also approve of the alterations in the dates of payment of the revenue instalments recommended by the Settlement Commissioner (paragraph 127). The suggestion made in the 5th paragraph of the Political Agent's

covering letter No. 3961, dated 8th August 1900, that the dates of payment should be fixed according to the Hindi calendar will doubtless receive Mr. O'Dwyer's consideration.

6. If Mr. O'Dwyer's present proposals are sanctioned, the aggregate enhancement of revenue in the twelve tahsils (including the jagir of Ballabgarh) into which the State is divided will be as follows :—

			Former demand.	Present.	Increase.
			Rs.	Rs.	Rs.
Northern tahsils	...	...	6,40,325	7,35,093	94,768
Central "	...	...	5,08,416	5,64,720	57,304
Southern "	...	...	7,55,655	7,87,000	31,345
Total			20,86,813	19,04,396	1,82,417

an increase of Rs. 1,82,417 or  $9\frac{1}{2}$  per cent.

7. The only point on which the State Council have expressed a difference of opinion from that held by the Settlement Commissioner is in connection with the remission of arrears of revenue. The total arrears in the four tahsils since 1890-91 to 1899-1900 amount to Rs. 6,24,139. Of this sum the Settlement Commissioner recommends (paragraph 59-A) the remission of Rs. 5,05,639, leaving only Rs. 1,15,500 to be realised. But in view of the fact that of the large amount of Rs. 13,60,052 (which formed the outstanding arrears up to the year 1890-91) a sum of Rs. 8,63,490 representing the total arrears prior to the last settlement have lately been remitted (paragraph 52) and that the further remission now proposed includes nearly  $\frac{3}{4}$ \* of the revenue suspensions made last October, the State Council are inclined to think that Mr. O'Dwyer's proposals are too liberal, and may demoralize the cultivators.

\* Vide paragraph 2 of Political Agent's letter No. 3961, dated 8th August 1900.

Mr. O'Dwyer has since suggested that a certain proportion of the arrears, the exact amount of which will be fixed by him before the new assessment is announced, should be realised by instalments, and that the question of the recovery or remission of the balance might be decided hereafter, the arrears of 1899-1900 in the other tahsils being similarly treated. The State Council have accepted this proposal, which appears to be sound.

8. In order to finish settlement operations during the approaching cold season, and to enable the new revenue demand to be introduced at the next kharif harvest, of which the first instalment will be collected between the 15th and 30th of November, Mr. O'Dwyer asks that the approval of the Government of India to his present recommendations may, if possible, be conveyed at a very early date. As they have been accepted by the State Council and by the Political Agent, I have no hesitation in recommending their being sanctioned.

9. Mr. O'Dwyer's able and interesting report evidences the great care and tact with which he has completed the settlement; and I trust that I may be permitted to say that his work merits the approbation of the Government of India.



Telegram, No. 3645-G., dated Abu, the 23rd August 1900.

From--The Honourable the Agent to the Governor-General in Rujputana,

To--The Foreign Secretary, Simla.

Reference paragraph 8 my letter 3539-G., dated August 17th. Bharatpur settlement have authorized O'Dwyer to announce proposed assessments subject to modification if Government so order, trust my action may be approved.



